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ABSTRACT

Part of a continuing process of curriculum reform in social studies in Iowa, this document presents teachers with the necessary background and information to aid in the reform, innovation, and evaluation of their own social studies programs. The materials are geared toward the appreciation and eventual implementation of new social studies techniques. The document examines five areas of the process which can be implemented individually or through inservice programs. Part one is designed to whet the teacher's appetite for the new social studies and to provide him with the methodological background necessary for the revision of his own curriculum. The chapters question what should be taught in social studies and deal with the following methodological themes: questioning, valuing, objectives, inquiry, simulation, and evaluation. Part two provides the analytical tools necessary to begin the revision process. Part three takes teachers through a 10-step revision process by combining curriculum experience and analysis into a workable curriculum revision program. Part four provides an up-to-date resource guide of the newest social studies project and inquiry materials that can supplement the curriculum change. (Author/JR)

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by the Author

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and finally,

To the teachers and students of Iowa who will use this publication and by this use will provide the ultimate justification for its existence.

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Grateful acknowledgement is expres
below who served on the Coordinating Co
of their time and efforts toward the public

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Grateful acknowledgement is expressed to the persons listed below who served on the Coordinating Committee and gave so freely of their time and efforts toward the publication of this handbook:

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Robert Rice (Former Superintendent of Schools, Estherville Community School District, Estherville, Iowa)

Tom Sandell, Social Studies Coordinator, Fort Dodge Community School District, Fort Dodge

Bill Sander, Administrative Assistant, Southeast Polk Community School District, Runnells

Dear Social Studies Teacher:

You have a special role to play in educating the next generation. Our way of life depends in large measure upon knowledgeable, active citizens in all walks of life. So the social studies *experiences* your students have throughout their school careers will have a strong effect upon their attitudes and actions as voting citizens. This handbook is a tool for you to use in designing *experiences* for your students, *experiences* similar to those they will encounter as adult citizens.

This publication is quite unlike anything the Department of Public Instruction has published heretofore. It does not prescribe lesson plans for an entire year nor merely describe different social studies curriculums and teaching methods. It is a handbook you have to actually use to gain something from it. It gives you opportunities to work through inquiry *experiences* just as your students will be doing. Then learning will become something you and your students do as companions. This is compatible with current educational theories and the growth of the idea that a teacher is no longer "a sage on the stage, but a guide on the side."

I hope you will use this handbook as a guide to providing citizen-like *experiences* for the young people in your classes . . . to the end that our society may be strengthened by competent, responsible citizens.

Sincerely,

Robert D. Benton

ROBERT D. BENTON, Ed.D.
State Superintendent of Public Instruction

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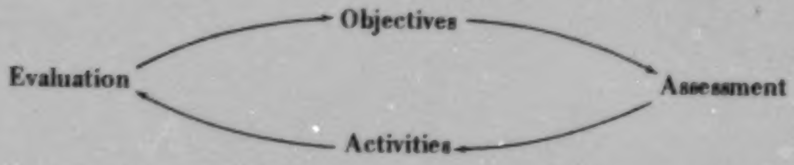
Foreword

Throughout its history, school curriculum has undergone a cyclical pattern of change, moving ahead when it was able to break the confines of tradition and capture the spirit of an age. More often, it has stagnated, for by holding too long that which became familiar and comfortable, the curriculum promoted an educational system which had outlived its usefulness. Russia's bid for scientific and technological superiority in the spring of 1957 signalled the beginning of a new era in American education. It was an era of innovation and experimentation which has challenged traditional curricular thought and has provided alternative approaches for curriculum now and in the future.

The potential value of these curriculum alternatives can be seen in the variety and scope of the materials now available for classroom use. As valuable as the products of the reform movement are, the processes used by the reformers in developing, designing and evaluating their materials may prove to be the most valuable contribution of the new social studies. The processes underlying the student materials force the students to take an active role in their own learning. In a like manner, the processes underlying the teacher materials force a reversal of the traditional teaching role. Used in tandem, the new student and teacher materials can provide effective social studies content for the classroom, and at the same time, can be an efficient instrument in changing the behavior of the people who use it.

Introduction

Instruction can be considered a process of assessing the present status of a group of learners relative to some aspect of education, prescribing activities to correct identified performance discrepancies and reassessing to determine whether discrepancies are eliminated. The cycle is repeated with each new unit or division of a subject or discipline. A model for the process is as follows:



Perspectives builds on the model in two ways. In the first instance it is used as a method of internal organization in which the objectives of each chapter are summarized, assessed in terms of the handbook design, and evaluated through the teacher's application of chapter themes. Second, the model provides a broad organizational function by linking the objectives component, developed most fully in Chapter One, with the questioning, valuing, inquiring, and simulation activities of Chapters Two through Five. In Chapter Six the objectives which began the model in Chapter One are revisited when the activity focus shifts to evaluation.

Part I of *Perspectives* is designed to whet the teacher's appetite for the new social studies and to provide teachers in Iowa with the methodological background necessary for the revision of their own district-wide curriculum. The purpose of Part II is to provide the analytical tools necessary to begin the revision process. Part III takes teachers through the revision process and Part IV provides the resources necessary to support and maintain a vibrant social studies curriculum in the schools.

The pedagogical model used in *Perspectives* embodies the "learning by doing" principle. The model is built on the assumption that the best way to learn the content and methodology of new curriculum is to experience, analyze, and apply it. The experience, analysis, and application cycle will be repeated through each of the first six chapters. The experience section of the chapters will be based, whenever possible, on resources adapted from the new social studies. The educational theory used to analyze the experience will be functional because it will be related to the reader's firsthand experience. Finally, the new perspectives and understandings will be applied back to the classroom and to the creation of instructional material.

Perspectives is designed for use by an individual teacher for the activities can be carried out on an individual basis. Because *Perspectives* is developmental in organization, the sequence of chapters suggests the most logical way to proceed through the program. The program would be more effective if teachers went through it in groups so they could interact and provide mutual encouragement and support. With minor revisions the program could be used as a basis for an entire semester-long inservice program. In either case, whether the approach is an individual or group effort, teachers must interact with the author and the handbook as they move through the chapters.

Part I
Methodological Perspectives

Part I of *Perspectives* will capitalize on the federally-financed curriculum efforts that have been carried out in the social studies. The revolutionary curriculum-building phase of these national projects is all but over. The next phase of the revolution must come at the state and district levels, where stress is placed on selection, adoption, evaluation, and modification of what is valuable from the projects for the public schools. The new social studies have revitalized the content of the social studies, for the new materials are perceptibly different from the traditional curriculum they were designed to replace. The behavioral sciences have recently emerged and have successfully challenged the curriculum monopoly long held by history and geography. The new materials express a degree of sophistication seldom seen before and suggest a new confidence in the ability of youth to take a responsive role in their own education.

The handbook reflects, as well, a new confidence in teachers and in their ability to take a creative and active role in curriculum design and implementation. Until recently the new curricula which were introduced tended to look a great deal like the curricula they replaced. This can be explained by the fact that curriculum development efforts tended to be short-term local endeavors, undertaken by teacher conscripts who had neither the time, the experience, nor the expertise to develop sound curriculum materials. The materials written by teacher committees may have been powerful in the hands of the teachers who developed them, but were relatively ineffective, for the majority of teachers abdicated their role

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in curriculum development to publishing companies, which often are more interested in selling textbooks than in preparing students for the real world. Teachers must re-assert their decision-making role in the curriculum. They can do it by experiencing, analyzing, and applying the best of the new social studies materials now available. Through this process teachers can gain the experience and expertise to carry into the 1970's the momentum of curriculum reform started in the 1960's.

Part II
Analytical Perspectives

Although excellent instruction does take place, the poor curriculum, poor teaching, poor curriculum cycle adversely affects social science education across the country. This cycle will only be broken through a conscientious re-evaluation of educational priorities at the local, state, and national levels. Part II of *Perspectives* will suggest a role the individual teacher can play in changing educational priorities. Change, if it is to be meaningful, must begin with each individual teacher. Teachers are more than a component of the change process, for they set the parameters within which meaningful change can take place. However innovative the new project materials are, their success or failure depends in large part on the attitudes, skills, and knowledge of teachers. The value of the new social studies is not so much in the curriculum products it has generated, but in the potential it has for changing teacher behavior. Behavior change does not occur in a vacuum, for teachers bring to the new curriculum a rich backlog of their own teaching experience. The new social studies will pass with time, but the experience gained from using it will not. The best of the new and the old experience should combine to become a foundation for the type of sound education required in the future. Unless this synthesis of old and new can take place, the social education of several generations of Iowa youngsters will suffer as a consequence.

Part III
Implementation Perspectives

Educators pay lip service to the fact that people "learn by doing," but rarely do they apply the principle to themselves. If school administrators and teachers are to make sense out of the curriculum reform movement, they must begin to utilize the products and processes of the movement. Through the systematic use of the new materials, educators in Iowa can develop the criteria to analyze, evaluate, modify and incorporate the content and methods of the "new" social studies into their school program as alternatives to what is presently being done. If this implementation can take place, teachers will capture the spirit of an age and greatly reduce the curriculum lag between what is happening in the world and what is being taught in the schools.

"Implementation Perspectives" establishes a comprehensive ten-step curriculum revision program providing guidance for the entering, starting, maintaining, and monitoring phases of curriculum revision. The entering strategies are a direct outgrowth of the first nine chapters of the handbook. After the first six chapters teachers will have developed their own units of study as a part of the application activities concluding each chapter. In Chapters VII through IX the units-of study developed in Part I will be subject to the analysis procedures of Part II. Because teachers will be accountable for the analysis procedures, the teacher-made units that emerge at the end of Parts I and II are ready to be implemented in Part III. Although this curriculum building experience will benefit the curriculum, the major thrust of the entry strategies is in assessing district-wide curriculum needs, narrowing the revision focus and establishing a workable process for curriculum change.

The starting strategies are based on a problem-solving approach to curriculum change. Selected teachers assume roles which require a limited field-testing of significant content from the new curriculum projects. These experimental materials are carefully evaluated and, under the supervision of the curriculum-revision committee, are woven into provisional courses of study. During the maintaining strategies these courses are disseminated throughout the system and undergo district-wide testing. By the end of the second year of the program, the new courses would be articulated into a social studies framework for the entire district. Suggestions are made in the monitoring phase of the process to allow teachers latitude in keeping the onging curriculum vibrant and up-to-date.

Part IV
Resource Perspectives

Part IV will provide an up-to-date resource guide to supplement the type of curriculum change envisioned in *Perspectives.* Resource perspectives have been used throughout this volume, first as they relate to the new social studies which provided much of the content

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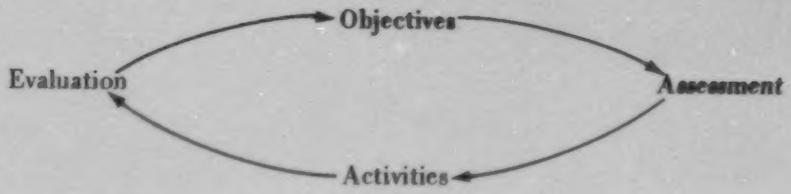
Part One
Methodological Perspectives

Chapter I
Objectives



It is the author's opinion that objectives, as they are typically used, are either so elusive that they offer little educational focus, or they are so mechanistic that they stifle creativity and limit meaningful thought. At either extreme, the statement of objectives can become a ritualistic exercise that inhibits rather than enhances the development of sound instructional programs. On the other hand, a flexible use of objectives can provide focus when it is needed, but also permit the teacher to move freely across a wide range of educational concerns. The theme "Objectives" will deal most directly with the question: What should be taught? In *Perspectives,* objectives will also deal with the following methodological themes and questions:

Chapter II: Questioning – What constitutes thinking?
Chapter III: Valuing – What should be valued?
Chapter IV: Inquiry – What sustains an open learning environment?
Chapter V: Simulation – Can instruction simulate reality?
Chapter VI: Evaluation – How do you know when learning takes place?

The present chapter will take up the question "What should be taught?" in the social studies. The answer will explore the relationship between objectives and knowledge and how the interaction of the two is the first step in a needs assessment process. If properly used, objectives can identify what a society holds to be important, and, at the same time, can provide a high degree of educational focus. The process of selecting objectives involves a careful look at the purposes of education and the various rationales which objectives can embody. Once selected, objectives can become tools for determining content, sequencing instruction, and evaluating outcomes. Objectives will only be static if the ideas they represent are static, and will only be ritualistic if they are misused by the curriculum designer and user.

Experience

Notes to the Teacher

In the experience section of this chapter you will look at educational objectives from various perspectives. These perspectives will develop from five tasks, each requiring a different classification system, a different set of categories, and a different concept label. The broad concept labels have been pre-determined for each task so your job is to examine the objectives, identify their attributes, and categorize them according to the concepts implied in the way they were grouped. Through this process you will experience a variety of differing objectives and begin to explore the potential objectives have for improving learning at all levels of instruction.

Task 1: Classifying by Student Role Orientation

Directions: To the right of the following objectives are three columns (1-2-3) with the designator "yes and no." The column is marked "yes" if the objective opposite it illustrates the concept "student role orientation" and is marked "no" if it doesn't. Each column represents a separate category which taken together, describe the broader concept "student role orientation." *For each column there will be two objectives with relevant attributes and four objectives without them.* Because the concepts embodied in each column are related to "student role orientation" the classification system you discover for one column should help you discover the classification systems underlying the other two. Answer the questions concluding the task and list the name of the category you have discovered.

1. Students will investigate the physical env
transportation networks and patterns of settl
will be able to anticipate and explain the
growth of urban centers.
2. Students will make responsible decisions ab
and political issues through the use of analy
and rational debate over the consequences
policy.
3. Students will choose, from a range of alternat
in a simulated parent-teenager conflict, a
action based on an understanding of the co
the consequences of the action for both te
parent.
4. Students will be able to investigate
phenomena, and through the use of cybernet
discover how aggregate supply adjusts to
demand.
5. Students will make decisions in light of thei
knowledge of man's interdependent nature
that in a pluralistic society democracy d
mutual respect, responsibility, and adhere
rule of law.
6. Students will choose freely from a range
positions and apply values clarification tec
existing and emerging beliefs and value patter

Student Role Ori

1) What were the attributes that distinguished o
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2) What behavior might you expect from a
studies program made up of the type of obje
Numbers 1 and 4? ________________

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column should help you discover the
s underlying the other two. Answer the
g the task and list the name of the
iscovered.

	1	2	3
1. Students will investigate the physical environment, transportation networks and patterns of settlement and will be able to anticipate and explain the probable growth of urban centers.	Yes	No	No
2. Students will make responsible decisions about social and political issues through the use of analytical skills and rational debate over the consequences of public policy.	No	Yes	No
3. Students will choose, from a range of alternative actions in a simulated parent-teenager conflict, a course of action based on an understanding of the conflict and the consequences of the action for both teenager and parent.	No	No	Yes
4. Students will be able to investigate economic phenomena, and through the use of cybernetic analysis, discover how aggregate supply adjusts to aggregate demand.	Yes	No	No
5. Students will make decisions in light of their conscious knowledge of man's interdependent nature and realize that in a pluralistic society democracy depends on mutual respect, responsibility, and adherence to the rule of law.	No	Yes	No
6. Students will choose freely from a range of value positions and apply values clarification techniques to existing and emerging beliefs and value patterns.	No	No	Yes

Student Role Orientation

1) What were the attributes that distinguished objectives Numbers 1 and 4 from the other objectives in Task No. 1? ____________________

____

2) What behavior might you expect from a student emerging from a social studies program made up of the type of objectives represented by objectives Numbers 1 and 4? ____________________

____

3) What were the attributes that distinguished objectives Numbers 2 and 5 from the other objectives in Task No. 1? ____________________

____

4) What behavior might you expect from a student emerging from a social studies program made up of the type of objectives represented by objectives Numbers 2 and 5? ______________________________

____

5) What were the attributes that distinguished objectives Numbers 3 and 6 from the other objectives in Task No. 1? ______________________________

____

6) What behavior might you expect from a student emerging from a social studies program made up of the type of objectives represented by objectives Numbers 3 and 6? ______________________________

____

7) All of the objectives suggest a certain type of role orientation and behavior pattern on the part of students. Based on the attributes common to each type of objective, name or label the three roles suggested in Task No. 1.

Column 1 (Name of Category)	Column 2 (Name of Category)	Column 3 (Name of Category)
____________	____________	____________

The actual labels you applied to each column are less important than the process you went through in Task No. 1 or the significance of concepts involved in the task. Every objective implies a philosophy of education and certain assumptions about education and its role in society. These assumptions are important because they are translated through educational objectives into student behavior. Do your objectives develop the *scholarly man* who can investigate his world through the modes of inquiry used by social scientists? Do your objectives develop the *public man* who functions as an informed decision-maker and who contributes actively to the public good? Do your objectives develop the *personal man* as a responsible choicemaker who can lead a self-fulfilled existence? Are there times when the curriculum should stress all three types of individual and develop students in a variety of role orientations?

Task 2: Classif
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Directions: Follow the same proce
and answer the questions at t
on attributes you discover t
designations. The categories
columns will combine to de
"domains of response."

1. Students will be able to investigate and
factors contributing to the defeat of Chia
and the Nationalist government in China.
2. Students will assume the role of a farmer i
and through a simulation depicting the
forces of nature and uncertain market
develop an empathy for the plight of fa
deeper feeling for the type of suffering ca
depression.
3. Students will be able to classify propagand
to the rules of logic and determine inst
unscientific means are used to influence op
4. Students will be able to inquire into, searc
from the past, and through it develop an a
how the social scientist creates kno
improving society.
5. Students will be able to demonstrate a
interest in political science through higher
post-test attitude survey administered at
the unit as opposed to the same scale adm
the start of the unit.
6. Students will be able to translate data from
tables into verbal behavior and state gen
based on that data that have not been give
in class.

Domains of Res

1. What were the attributes that distinguishe

pect from a student emerging from a social
of the type of objectives represented by

____

____

t distinguished objectives Numbers 3 and 6
ask No. 1? ______________________

____

pect from a student emerging from a social
of the type of objectives represented by

____

____

certain type of role orientation and behavior
ts. Based on the attributes common to each
l the three roles suggested in Task No. 1.

lumn 2 **e of Category)**	**Column 3** **(Name of Category)**
______________	______________

to each column are less important than
h in Task No. 1 or the significance of
. Every objective implies a philosophy
nptions about education and its role in
e important because they are translated
es into student behavior. Do your
ly man who can investigate his world
y used by social scientists? Do your
man who functions as an informed
ibutes actively to the public good? Do
e personal man as a responsible
elf-fulfilled existence? Are there times
tress all three types of individual and
f role orientations?

Task 2: Classifying by Domains of Response

Directions: Follow the same procedure outlined in Task No. 1 and answer the questions at the end of the exercise based on attributes you discover through each of the column designations. The categories represented by the three columns will combine to describe the broader concept "domains of response."

	1	2	3
1. Students will be able to investigate and describe the factors contributing to the defeat of Chiang-Kai-Shek and the Nationalist government in China.	Yes	No	No
2. Students will assume the role of a farmer in the 1930's and through a simulation depicting the precarious forces of nature and uncertain market conditions, develop an empathy for the plight of farmers and a deeper feeling for the type of suffering caused by the depression.	No	Yes	No
3. Students will be able to classify propaganda according to the rules of logic and determine instances when unscientific means are used to influence opinion.	No	No	Yes
4. Students will be able to inquire into, search, and learn from the past, and through it develop an awareness of how the social scientist creates knowledge for improving society.	Yes	No	No
5. Students will be able to demonstrate an increased interest in political science through higher scores on a post-test attitude survey administered at the end of the unit as opposed to the same scale administered at the start of the unit.	No	Yes	No
6. Students will be able to translate data from graphs and tables into verbal behavior and state generalizations based on that data that have not been given previously in class.	No	No	Yes

Domains of Response

1. What were the attributes that distinguished objectives Numbers 1 and 4

from the other objectives in Task No. 2? ______________________

____

2. Identify the behavior required of the student to accomplish the task embodied in objectives 1 and 4. ______________________

____

3. What were the attributes that distinguished objectives Numbers 2 and 5 from the other objectives in Task No. 2? ______________________

____

4. Identify the behavior required of the student to accomplish the task embodied in objectives 2 and 5. ______________________

____

5. What were the attributes that distinguished objectives Numbers 3 and 6 from the other objectives in Task No.2? ______________________

____

6. Identify the behavior required of the student to accomplish the task embodied in objectives 3 and 6. ______________________

____

7. All of the objectives suggest various domains of response. In the spaces below name the three domains suggested in Task No. 2.

Column 1 (Name of Domain)	Column 2 (Name of Domain)	Column 3 (Name of Domain)
____________	____________	____________

Again, the actual labels you developed are not as important as the phenomena they describe. In column 1, you were dealing with objectives that emphasized intellectual learning and the processes of thought used by scholars in their fields of study. This type of response is referred to as the *cognitive domain.* Column 2 stressed objectives with emotional overtones. These objectives deal with feelings, attitudes and degree of commitment toward beliefs or value patterns. This type of response is referred to as the *affective domain.* In column 3, you were dealing with objectives that stressed *social studies skill development.* There is a psyc
with bodily movement, but because this do
immediate concern of social education, the
stressed skills which are the particular do
area. You may have been troubled by such
system. There is, in fact, a great deal
domains, and it is doubtful if people can
domain without also reacting in the other
however, because it makes the vocabulary
precise and makes teachers aware that they
individual in the classroom.

Task 3: Classifyi
Levels o
Thought

Directions: Complete the following
previous ones. In this task you
type of thinking required of stude

1. Students will be able to identify all the
invaded by Nazi Germany by the time of U
into World War II.
2. Students will be able to make inferences
culture based on selected artifacts of that cult
3. Students will be able to construct a model
might exist in the year 1980 using the
principles learned in urban geography.
4. Students will be able to match a list of key
battles with the generals from the North an
who were in command at the time.
5. Students will be able to use concepts of su
demand to explain the farm problem.
6. The students will develop a simulation game
the topic of ecology.

Levels of Tho

1. What were the attributes that distinguished t
from the others?

ask No. 2? ______________________________

____

ired of the student to accomplish the task
4. ______________________________

____

at distinguished objectives Numbers 2 and 5
ask No. 2? ______________________________

____

ired of the student to accomplish the task
5. ______________________________

____

at distinguished objectives Numbers 3 and 6
ask No.2? ______________________________

____

ired of the student to accomplish the task
6. ______________________________

____

t various domains of response. In the spaces
s suggested in Task No. 2.

mn 2 of Domain)	Column 3 (Name of Domain)
____________	____________

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. In column 1, you were dealing with
tellectual learning and the processes of
n their fields of study. This type of
cognitive domain. Column 2 stressed
vertones. These objectives deal with
of commitment toward beliefs or value
se is referred to as the *affective domain.*
ing with objectives that stressed *social*

studies skill development. There is a psychomotor domain dealing with bodily movement, but because this domain is removed from the immediate concern of social education, the objectives in Task No. 2 stressed skills which are the particular domain of the social studies area. You may have been troubled by such an arbitrary classification system. There is, in fact, a great deal of overlap between the domains, and it is doubtful if people can operate in the cognitive domain without also reacting in the other two. The system is useful, however, because it makes the vocabulary of objectives much more precise and makes teachers aware that they are dealing with the total individual in the classroom.

Task 3: Classifying by Levels of Thought

Directions: Complete the following task as you have the previous ones. In this task you will be working with the type of thinking required of students by various objectives.

1. Students will be able to identify all the countries invaded by Nazi Germany by the time of U.S. entry into World War II.
2. Students will be able to make inferences about a culture based on selected artifacts of that culture.
3. Students will be able to construct a model city as it might exist in the year 1980 using the spatial principles learned in urban geography.
4. Students will be able to match a list of key Civil War battles with the generals from the North and South who were in command at the time.
5. Students will be able to use concepts of supply and demand to explain the farm problem.
6. The students will develop a simulation game based on the topic of ecology.

1	2	3
Yes	No	No
No	Yes	No
No	No	Yes
Yes	No	No
No	Yes	No
No	No	Yes

Levels of Thought

1. What were the attributes that distinguished the objectives in one column from the others?

A) Column 1? ______________________________

____

B) Column 2? ______________________________

____

C) Column 3? ______________________________

____

2. What kind of thought, valuing, and skill processes would a person use to perform the tasks required in:

A) Column 1? ______________________________

____

B) Column 2? ______________________________

____

C) Column 3? ______________________________

____

3. What name would you use to label the following:

A) Column 1? ______________________________

____

B) Column 2? ______________________________

____

C) Column 3? ______________________________

____

There are various labels that could be applied to the categories in Task No. 3. They could be general in nature going from very little thought in column 1 to a great deal of thought in column 3. A more specific classification might include *information* or *knowledge* in *column* 1, *interpretation* or *leading* in *column* 2 and *probing* or *application* in *column* 3. The importan
that objectives can be written in ways th
thinking in the classroom, and that the v
be planned for by the teacher.

Task 4: Classifyi
Specific

Directions: Complete the following
this task you will be workin
objectives under consideration.

1. Students will be able to list the last five de
to hold office.
2. Students will be able to compare and contr
program of L. B. Johnson's "The Great
"New Deal" reform of F. D. Roosevelt.
3. Students will be able to make a tool
flexibility and range of the human h
designated tasks.
4. Students will be able to develop a wor
technology and demonstrate technology's i
economic, and political institutions of a give

Specificit

1. What were the attributes that distinguished t
those in column 2? ______________________________

____

A) Column 1

B) Column 2

2. What are the potential dangers of writing to
objectives? ______________________________

____

ing, and skill processes would a person use to
n:

label the following:

that could be applied to the categories be general in nature going from very little eat deal of thought in column 3. A more include *information* or *knowledge* in *leading* in *column* 2 and *probing* or

application in *column* 3. **The important principle of the exercise is that objectives can be written in ways that require different levels of thinking in the classroom, and that the various levels of thought can be planned for by the teacher.**

Task 4: Classifying by Specificity

Directions: Complete the following as you have been doing. In this task you will be working with **specificity** of the **objectives** under consideration.

	1	2
1. Students will be able to list the last five democratic presidents to hold office.	Yes	No
2. Students will be able to compare and contrast the social reform program of L. B. Johnson's "The Great Society" with the "New Deal" reform of F. D. Roosevelt.	No	Yes
3. Students will be able to make a tool that increases the flexibility and range of the human hand to accomplish designated tasks.	Yes	No
4. Students will be able to develop a working definition of technology and demonstrate technology's impact on the social, economic, and political institutions of a given culture.	No	Yes

Specificity

1. What were the attributes that distinguished the objectives in column 1 from those in column 2? ______

A) Column 1

B) Column 2

2. What are the potential dangers of writing too specific a set of instructional objectives? ______

3. What dangers are implicit in programs based on general or very broad objectives? ____________________

____

4. What name would you use to label the following:

A) Column 1 ____________________

B) Column 2 ____________________

Task No. 4 points out the wide range of inclusiveness that can be structured into educational objectives. The degree of inclusiveness can be good or bad, depending on whether the teacher uses the objectives or the objectives use the teacher. Objectives become ritualistic if they are so inclusive that they have no meaning. On the other hand, if teachers spend large amounts of time and energy writing objectives for every possible classroom contingency, then the objectives are providing a marginal service at best.

Task 5: Classifying by Structure

As the structural elements of an objective change, so will its function or the way it can be used. In the exercise which follows, two specimen objectives will be stated containing five structural elements. In rows 2-6 the objectives will be repeated, dropping one of the elements at each restatement.

Directions: In the spaces provided following rows 2-6 you are to identify and label the element in each objective that has been eliminated. At the conclusion of the exercise you should be able to make some generalizations about the various uses of informational and planning objectives.

Row 1: Originial objective (containing all five elements)

Students will recite in class the names and terms of the 20th Century presidents, putting them in chronological order and missing no more than two.

Students will identify on an outline map without reference to texts or class notes 40 out of the 50 states of the union.

Row 2: Rewritten objective (first element eliminated)
Students will recite in class the names and terms of the 20th Century presidents.

Stu
outl
to t
stat

Element Eliminated

____

Row 3: Rewritten objective (second eleme
Students will recite the names and terms of the 20th Century presidents.

Stud
state

Element Eliminated

____

Row 4: Rewritten objective (third element
Students will recite

Stud

Element Eliminated

____

Row 5: Rewritten objective (fourth element
Students . . .

Stud

Element Eliminated

____

Row 6: Rewritten objective (final elemen

____

in programs based on general or very broad

label the following:

e wide range of inclusiveness that can be
objectives. The degree of inclusiveness
nding on whether the teacher uses the
s use the teacher. Objectives become
usive that they have no meaning. On the
nd large amounts of time and energy
possible classroom contingency, then the
rginal service at best.

assifying by ructure

nts of an objective change, so will its
be used. In the exercise which follows,
ill be stated containing five structural
bjectives will be repeated, dropping one
tement.

s provided following rows 2-6 you are to
the element in each objective that has
At the conclusion of the exercise you
make some generalizations about the
ormational and planning objectives.

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Students will identify on an outline map without reference to texts or class notes 40 out of the 50 states of the union.

Row 2: Rewritten objective (first element eliminated)

Students will recite in class the names and terms of the 20th Century presidents.

Students will identify on an outline map without reference to texts or class notes the 50 states of the union.

Element Eliminated

Row 3: Rewritten objective (second element eliminated)

Students will recite the names and terms of the 20th Century presidents.

Students will identify the 50 states of the union.

Element Eliminated

Row 4: Rewritten objective (third element eliminated)

Students will recite

Students will identify

Element Eliminated

Row 5: Rewritten objective (fourth element eliminated)

Students . . .

Students . . .

Element Eliminated

Row 6: Rewritten objective (final element eliminated)

Structure

1. What is the difference between the objective in Row 1 and the objective in Row 3?____

____

2. How could objectives of the type in Row 1 be used to assess students' behavior prior to instruction and evaluate it after instruction? __________

____

3. How could objectives of the type in Row 3 be used in the instructional process?____

____

4. These objectives are "behavioral objectives." What role might non-behavioral general objectives play in education?_______________________

____

Writing performance-based objectives such as **planning** and **informational** objectives, is only the culmination of a long and demanding intellectual process.

General objectives will point out the broad aims and purposes of society and of the individual as part of society.

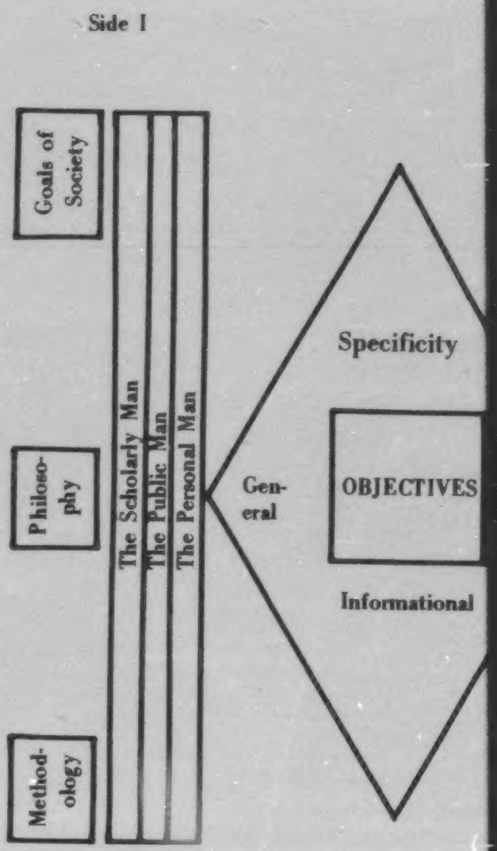
Informational objectives will focus on the type of behavior expected of teachers and students as members of society.

Planning objectives operationalize learning by providing criteria and standards for assessing and evaluating instruction as it is carried out in the classroom.

Reflections on the Objectives Experience

The model in Figure No. 1 brings together the various processes in the development of objectives. The questions which follow the model are not to be answered on paper but will focus on the model in review of what has been done and serve as a portent of what will follow. The model suggests that objectives begin within a general societal framework, and depending on objectives can be used in a number of purposes.

Figure 1
Attributes of Obje



Questions

1. What is the major difference between the two
2. In what way would the societal goals, philoso to the scholarly-man focus be different fr methodologies that go into the public or pers
3. What type of school programs would exclusi public, or the personal man? What program the three categories?

Structure

tween the objective in Row 1 and the objective in ________________________________

____

the type in Row 1 be used to assess students' n and evaluate it after instruction? ____________

____

the type in Row 3 be used in the instructional ________________________________

____

"behavioral objectives." What role might ectives play in education? ________________

____

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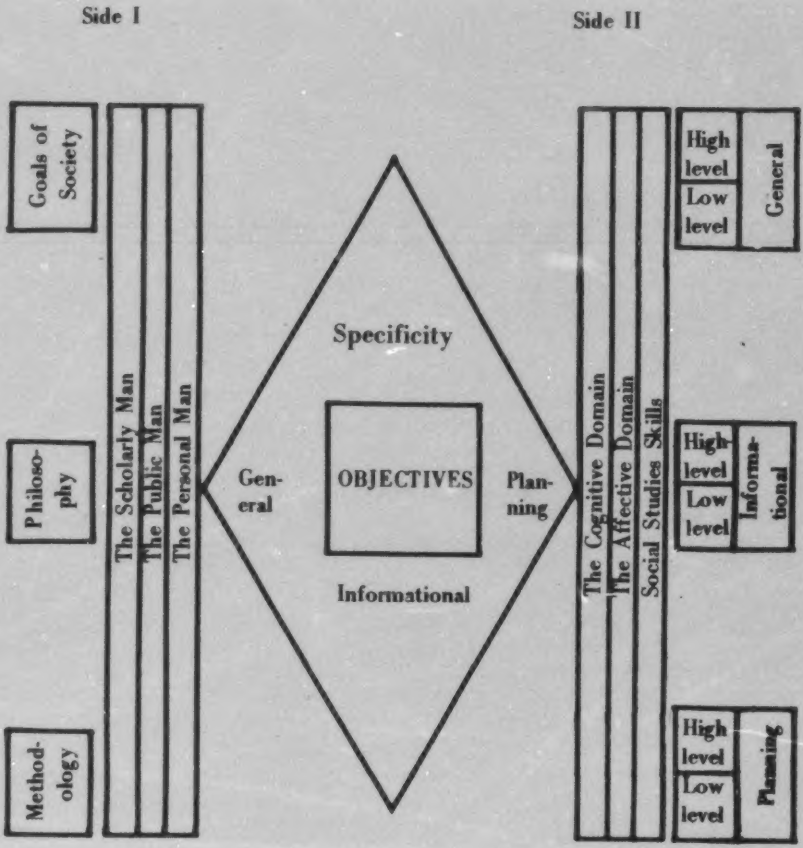
s Experience

. 1 brings together the various processes ectives. The questions which follow the ed on paper but will focus on the model done and serve as a portent of what will that objectives begin within a general

societal framework, and depending on the rationale of the teacher, objectives can be used in a number of ways and for a number of purposes.

Figure 1
Attributes of Objectives


Side I
Side II
Goals of Society
Philoso-phy
Method-ology
The Scholarly Man
The Public Man
The Personal Man
Gen-eral
Specificity
OBJECTIVES
Informational
Plan-ning
The Cognitive Domain
The Affective Domain
Social Studies Skills
High level
Low level
General
High-level
Low level
Informa-tional
High level
Low level
Planning

Questions

1. What is the major difference between the two sides of the model?
2. In what way would the societal goals, philosophy, and methodologies leading to the scholarly-man focus be different from the goals, philosophy, and methodologies that go into the public or personal man?
3. What type of school programs would exclusively produce the scholarly, the public, or the personal man? What programs might stress combinations of the three categories?

4. What are the advantages and disadvantages of separating domains of response into cognitive, affective, and skill areas?
5. Should all objectives stimulate higher rather than lower-level thinking processes?
6. In what way can performance-based instructional objectives improve learning in the classroom?

Analysis

The "Analysis Section" will concentrate on the five themes identified in performance of the tasks in the Experience section of the chapter.

- o Student Role Orientation (Task 1)
- o Domains of Response (Task 2)
- o Levels of Thought (Task 3)
- o Specificity and Structure (Tasks 4 & 5)

Analysis of these themes is necessary because each has an important contribution to make in the design of sound educational programs. This is especially true in the social sciences where teachers have been bombarded with a dazzling array of new materials, each project with its own rationale, objectives, and instructional procedures. The examination of objectives must begin with the purpose of education and the way this purpose is reflected in student behavior.

Student Role Orientation

The question "What should be taught?" is a difficult one to answer, but it is a question that needs to be asked. The confused state of social education is due in part to a lack of consensus concerning what social education is all about. Recent findings[1] have confirmed the growing suspicion of many educators, politicians, and laymen alike that schools by themselves cannot redress the social ills of this country, and that social engineering of the 60's is yet another casualty of the "Great Society."

The concept "compensatory education" which includes such efforts as Head Start, busing, and equal education opportunity, is being replaced in the educator's vocabulary by concepts like "community education" and "career education" both of which are reminiscent of an earlier progressive age. Although these concepts are not new to education, they are being prese
the same high hope, expectation, and con
most educational reform. Rather than
education, these claims and counterclaims c

Meaningful objectives cannot be built
rigorous assessment of sound educational p
and a consensus that weaves these p
educational priorities and workable classroo

A consensus of sorts is developing in so
is reflected in the work being done by
Regional Educational Laboratory.[2] Th
described in Figure 2 assumes that most e
social education are designed to promote
Although most educators agree that r
desirable, they often disagree on the
ultimate behavior that constitutes responsib

Tom has addressed the problem by
citizenship into three types of man produc
the scholarly man, the public man, and
general categories are subdivided furthe
traditional way they have been construed
been reconstituted by the new social stu
educational change is evolutionary, it is th
the scholarly, the public, and the person
greatest emphasis in *Perspectives*.

A consensus built around the classifica
is possible because the ideas represented in
eclectic, representing various educational
theories. The system recognizes the sound
the past as they have evolved into the prese
change as an evolutionary process wher
cumulative, and developmental.

Educational change is often described
back and forth discovering and then red
knowledge. A better and more realisti
knowledge as a stream which flows unaba
and mementum due to the tributaries that
the stream of knowledge are the subject
curriculum, though hardly a tributary, is
knowledge is passed from one generation
change, on the other hand, can be characte
and backwaters.

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gressive age. Although these concepts are not new to education, they are being presented as if they were with the same high hope, expectation, and conviction that accompanies most educational reform. Rather than clarifying the aims of education, these claims and counterclaims confuse the issue.

Meaningful objectives cannot be built on rhetoric, but only on rigorous assessment of sound educational practices, past and present, and a consensus that weaves these practices into achievable educational priorities and workable classroom objectives.

A consensus of sorts is developing in social studies education and is reflected in the work being done by the Central Midwestern Regional Educational Laboratory.[2] The classification system described in Figure 2 assumes that most educational approaches in social education are designed to promote "responsible citizenship." Although most educators agree that responsible citizenship is desirable, they often disagree on the content, objectives, and ultimate behavior that constitutes responsible citizenship.

Tom has addressed the problem by categorizing responsible citizenship into three types of man produced by today's curriculum: the scholarly man, the public man, and the personal man. These general categories are subdivided further in Figure 2 into the traditional way they have been construed and the way they have been reconstituted by the new social studies movement. Because educational change is evolutionary, it is the more recent version of the scholarly, the public, and the personal man that will receive greatest emphasis in *Perspectives*.

A consensus built around the classification suggested in Figure 2 is possible because the ideas represented in each of the categories are eclectic, representing various educational philosophies and learning theories. The system recognizes the sound educational practices of the past as they have evolved into the present. The system recognizes change as an evolutionary process where knowledge is additive, cumulative, and developmental.

Educational change is often described as a pendulum swinging back and forth discovering and then rediscovering the same old knowledge. A better and more realistic analogy would treat knowledge as a stream which flows unabated, but gathers breadth and mementum due to the tributaries that feed it. The tributaries to the stream of knowledge are the subject matter disciplines, while curriculum, though hardly a tributary, is the formalized way that knowledge is passed from one generation to the next. Curriculum change, on the other hand, can be characterized as a series of rapids and backwaters.

Figure 2

Categories of Citizenship[3]

Traditional	Type of social studies content	Instrumental Outcome	Ultimate Outcome	New Social Studies
X	Social science knowledge (facts and generalizations)	Students' understanding of human behavior and institutions	Scholarly man (authority on the social sciences)	
	Ways of social science thinking (modes of inquiry)	Students' ability to think like a social scientist	Scholarly man (Investigatory)	X
X	Value judgments of a reference group	Student's commitment to particular value judgments	Public man (Possessor of moral truth)	
	Procedures for making rational value judgments	Students' ability to make rational value judgments	Public man (decision maker)	X
X	Procedures which insure satisfied life adjustment*	Students as wise consumers of the products of society	The Personal Man (as self adjusted)	
	Reality-based content leading toward a more human existence	Students as responsible choice makers	The Personal Man (as choice maker)	X

*These last two categories were suggested by Tom, but not fully developed in his analysis system. The elaboration of each type of individual in *Perspectives* is the author's interpretation of the Tom classification system.

For a great deal of the time, cu
backwaters of intellectual thought to be
mainstream where it is revitalized and i
short time later into new backwaters and
The rapids of the stream are the educatio
changing educational priorities more th
revolutionary thought. Their ability
matched by their inability to translate th
curriculum consumer can understand,
widescale practice. In many cases the mo
short-lived, for once the rapids are cross
the accolades given, the funding currents
rapids, while curriculum drifts from e
accumulative and developmental flow
continual survival.

The advantage of Tom's classification
a historical perspective on educational c
the recent advances in each of the scho
man categories, it can capitalize on the
thought without compounding its errors.

Although schools and individual teac
of the three traditions, no one traditio
complete exclusion of the others. The *sch*
and choice-making individual. The *publ*
community, but meaningful involvement
reasoned or it becomes ritualistic. The *pe*
the choices he makes, and, whether he lik
society he must function within its fram
the three curriculum types has been ha
reform movement of the 1960's and the
developers to make the social science d
schools.

Of the three social dimensions, howe
is the only one that received little
movement. Several social studies proj
concepts like "man and technology," but
personal dimension has been the recent a
education and the community school. Th
show that a consensus of social educa
challenge still facing any new consensus wi
dimension into the existing educational

Figure 2

egories of Citizenship[3]

l nt	Instrumental Outcome	Ultimate Outcome	New Social Studies
)	Students' understanding of human behavior and institutions	Scholarly man (authority on the social sciences)	
l ng	Students' ability to think like a social scientist	Scholarly man (Investigatory)	X
	Student's commitment to particular value judgments	Public man (Possessor of moral truth)	
r l ts	Students' ability to make rational value judgments	Public man (decision maker)	X
	Students as wise consumers of the products of society	The Personal Man (as self adjusted)	
	Students as responsible choice makers	The Personal Man (as choice maker)	X

ories were suggested by Tom, but not fully
system. The elaboration of each type of
is the author's interpretation of the Tom

For a great deal of the time, curriculum languishes in the backwaters of intellectual thought to be periodically swept into the mainstream where it is revitalized and invigorated, only to enter a short time later into new backwaters and new periods of stagnation. The rapids of the stream are the educational reformers who represent changing educational priorities more than they represent new or revolutionary thought. Their ability to generate innovation is matched by their inability to translate that innovation into terms the curriculum consumer can understand, much less implement into widescale practice. In many cases the movements they represent are short-lived, for once the rapids are crossed, the articles written, and the accolades given, the funding currents carry the reformers to new rapids, while curriculum drifts from eddy to eddy without the accumulative and developmental flow so necessary to man's continual survival.

The advantage of Tom's classification system is that it does offer a historical perspective on educational change. Because it embodies the recent advances in each of the scholarly, public, and personal man categories, it can capitalize on the virtues of past educational thought without compounding its errors.

Although schools and individual teachers can emphasize any one of the three traditions, no one tradition should dominate to the complete exclusion of the others. The *scholarly man* is also a valuing and choice-making individual. The *public man* is involved in his community, but meaningful involvement must be purposeful and reasoned or it becomes ritualistic. The *personal man* must live with the choices he makes, and, whether he likes it or not, as a member of society he must function within its framework. This integration of the three curriculum types has been hastened by the curriculum reform movement of the 1960's and the efforts of the curriculum developers to make the social science disciplines teachable in the schools.

Of the three social dimensions, however, the personal dimension is the only one that received little attention by the reform movement. Several social studies projects are now addressing concepts like "man and technology," but the major emphasis on the personal dimension has been the recent activity dealing with career education and the community school. The following discussion will show that a consensus of social education is possible, but the challenge still facing any new consensus will be to weave the personal dimension into the existing educational priorities and develop a curriculum that provides social education for *all* Iowa students.

I. The Scholarly Man

A. As an authority on the social sciences

A subject-centered curriculum dominates today in much of the social studies instruction at the secondary level. The curriculum is content rather than student-centered and is organized into courses of study that parallel the major subject matter disciplines. The traditional curriculum is essentialist in that its content covers the facts, concepts, generalizations, principles, and skills necessary for continued work in the subject-matter areas. Because the major focus is on coverage of pre-defined bodies of subject matter, there is little built-in concern for individual student differences. If students fail to cover the materials they often are forced to repeat until mastery is evident. The instructional methods consist of standard didactic patterns of read, lecture, quiz, and test while the textbook remains the primary source of instructional material. Although there are excellent traditional teachers, this educational focus is the one that is subject to greatest abuse.

B. As investigator of his world

The structure of the discipline approach is still subject matter-centered, but it is subject matter which is based on a reasoned ordering of knowledge. Schwab has identified two types of structure: *substantive structure* which is the logical ordering of the concepts, generalizations, and theories of a discipline; and *syntactical structure* which is the way the disciplinarian verifies knowledge as he practices his discipline.[4]

Substantive structure concentrates on the content side of the discipline while syntactical structure builds on the processes of a discipline. A scholarly investigating orientation will involve both types of structure. It uses substantive structure because knowledge is more than arbitrary facts to be memorized and recalled, because knowledge should be reasonable, interrelated and yielding to the student's inquiry processes. The *syntactical structure*, on the other hand, recognizes that without processes there is no possible way for students to keep up with the new knowledge, let alone master the knowledge accumulated through thousands of years of human history.

The *structure approach* demands student involvement; therefore consideration must be given to student motivation. Learning activities combine social science concepts and inquiry processes in ways that are meaningful and useful for the student. Students, for

example, become historians and determine
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II. The Public Man

A. As possessor of moral truths

Education has always been concerned
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example, become historians and determine the validity of conflicting historical accounts of a battle. They become geographers and settle boundary disputes. They become sociologists, political scientists, and economists extending their knowledge much the way the scholar does on the frontiers of his field. Yet, with all its involvement and its creative use of media and techniques, the approach is still subject matter-centered. There is little provision for student choice in the initial learning of subject-matter concepts and structure, although choice can be provided in the application phases of the process. The structure approach, by its nature, treats single disciplines, and though much rethinking has been done in this regard, the new materials typically require the same subject matter designations characteristic of the traditional subject-centered approach.

For this reason, there is little provision for individual differences in the structure approach; in fact, many of the materials are geared for the better students who presumably will attend college. The problems chosen for study are, in large part, preselected and reflect the concerns of the social scientist rather than the immediate concerns of students in the classroom. These needs are not incompatible but any prepackaged curriculum should be adapted to the local conditions under which it is taught. In spite of these problems, the scholarly investigating man must remain a fundamental part of the new consensus.

II. The Public Man

A. As possessor of moral truths

Education has always been concerned with the preservation and transmission of cultural heritage. A curriculum emphasizing the scholarly man defines this heritage in terms of subject matter areas. A curriculum designed to promote the public man centers on the type of behavior required of citizens in a democratic society. Around the turn of the century public morality was enshrined in the curriculum as a series of virtues like honesty, cleanliness, and thrift to be inculcated in children by their teachers. Few serious educators today ascribe to such arbitrary indoctrination although some present-day curricula in American history and civics comes very close to it.

The progressives seriously challenged this formalistic conception of education through their pragmatic contention that values are relative rather than absolute, and in turn are subject to change. Values, according to the pragmatist, must be tested and verified in the marketplace of ideas like any other form of knowledge. The cultural heritage was to be passed on, but only after it was tested in the crucible of experience. The educated man was the man who was involved in his changing environment, who gathered information, who analyzed issues, who joined with others of like mind, and who contributed actively to the public good. The curriculum was problem-centered and took into consideration the needs, concerns, and differing attitudes of students. The process used to deal with problems in the classroom was reflective thinking, a variation of the problem-solving process used by scientists. Subject matter was learned indirectly as a result of the student's first-hand encounters with life's problems.

B. As decision maker

There is very little break in the transition from the progressivist's problem-solving approach and the treatment given values by the advocates of the new social studies. Progressive principles were widely quoted, but seldom practiced at the secondary level. Part of the blame can be placed on the exclusion of subject matter, and the excesses of the related life-adjustment movement. Part of the blame rests on the difficulty of the problems approach, and the fact that most teachers were simply unable to execute the ideals embodied in the "core curriculum."

Several forces in the last decade came together to rekindle interest in values education. A major force was a general disenchantment with the "neutrality" implied in subject-centered teaching, and behaviorist learning theory. There is a need to treat both the cognitive and affective domains of human learning. Scholars began to realize that learning and feeling were mutually interdependent and that "just teaching the facts" was no longer enough. This realization, coupled with the growing campus unrest, rising crime rates, increased drug abuse, and indiscriminate violence in Viet Nam, coalesced into a new commitment toward values education. Evidence of this concern for values education was reflected in the theme of the 1972 National Council for the Social Studies Convention. "We Live in a Revolution--Is the Social Studies With It?" Over half of the principal speakers at the conference dealt with topics centering on values education.

III. The Personal Man

A. As self-adjusted

Tom has identified the personal man as one who "is a wise consumer of the products of our economy, is satisfied with the vocation he has selected, has a rewarding home life, has meaningful

relations with other people." Tom did
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the personal man were typically dumpi
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by the American Vocational Associatio
individual students to develop the
capabilities.

- Favorable attitudes toward th
  social, and economic significance
- Appreciation for the worth of all
- Decision-making skills necessary
  and for changing career directions
- Capability of making considere
  based upon development of self
  career options.
- Capability of charting a co
  self-established opportunities.
- Knowledge, skill, and attitudes
  success in a career.[6]

If these means and ends can be wo
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personal man as one who "is a wise
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relations with other people." Tom did not treat the personal man in his classification system except to mention that courses designed for the personal man were typically dumping grounds for students who couldn't do scholarly work. In the social studies this consisted of courses in consumer economics and family living, or courses dealing with psychology of adjustment.[5]

This traditional view of the personal man has its antecedents in the progressive movement, particularly in the life adjustment movement of the 1940's and 1950's. These half-hearted attempts to provide for the personal dimension created in the 50's and 60's widespread unrest throughout the entire educational community. In the 50's the unrest underwent an essentialist reaction demanding a return to the "basics" of sound subject matter. In the 60's the voices of unrest, though seldom uniform, were caught up in an Existentialist reaction espousing a philosophy of choice and individual freedom. In the 70's the life adjustment movement came full cycle and has re-emerged of late in the career education movement.

According to a recent "Task Force Report on Career Education" by the American Vocational Association, career education can help individual students to develop the following attitudes and capabilities.

- Favorable attitudes toward the personal, psychological, social, and economic significance of work.
- Appreciation for the worth of all types and levels of work.
- Decision-making skills necessary for choosing career options and for changing career directions.
- Capability of making considered choices of career goals, based upon development of self in relation to the range of career options.
- Capability of charting a course for realization of self-established opportunities.
- Knowledge, skill, and attitudes necessary for entry and success in a career.[6]

If these means and ends can be worked into the school fabric, career education can take the high road, and rather than be a perfunctory treatment of jobs with periodic visits to bakeries, fire stations, and gas stations, career education can provide an indepth and systematic investigation of the wide range of opportunities that exist in today's society. The personal dimension of the curriculum will be established in the degree to which the opportunities that exist are tied to the hopes, capabilities and aspirations of students.

B. As choice maker

It would be difficult to locate any of the new social studies curriculum materials squarely in the existentialist camp, for advocates of "new schools" are opposed to prepackaged learning. On the other hand, it would be difficult to find among the new project materials ones that have not been influenced by these voices from the educational left. Although the voices are seldom uniform, their volume has forced education to become much more human. Students imbued with the new philosophy will no longer tolerate a closed learning environment, for without freedom and choice there is little room for pride, integrity, and human dignity. The student's needs and interests are presumed to be the only true basis for content selection, and what students do with this new learning will determine the type of person they become.

If the new social studies fails, it will be in the degree to which it ignores the growing emphasis on student rights. The greatest challenge facing the new social studies is to capitalize on the growing demand for freedom and relevance while at the same time maintaining an intellectually sound, yet stimulating curriculum. Students will accept the first round of curriculum revision because it is better than what went before. Unless that first round of innovation is followed by creative adaptation on the part of the individual teacher, student unrest may grow into student revolution.

Relevant education is possible if a concerted effort is made to employ in practice the educational theory and practical know-how that presently exists. Our pluralistic society demands that we educate the total individual, and that the cognitive, effective, and psychomotor domains of learning make up that totality. Yet education is only one avenue of social improvement, and, by itself, it is not going to redress the ills of the nation. We can educate the scholarly man to fill the professional ranks, but society and its value structure will determine if this man serves a socially productive function. We can educate the public man, but it will be society that defines the ultimate limits of acceptable social behavior. We can educate the personal man, but society, through its sanctions, will encourage or discourage the choices he will make. In a similar manner we can educate the personal man and provide for alternative career choices, but society must match the student's career expectation with high-level career training, and be willing to finance it. We can educate for all three dimensio
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it. We can educate for all three dimensions, but to be successful, support for these different individuals must extend beyond the school walls and must permeate the entire fabric of society. If we begin to educate the total man, the 70's may see a fundamental re-ordering of American education, and in the area of social studies, the new consensus could be the foundation upon which sound educational objectives can be selected.

So far the discussion has revolved around the various student-role orientations that could be the basis for a new consensus in social education. How, for example, can consensus be reached by a teacher who has college bound seniors and must on the one hand, satisfy the intellectual rigors of the college board examinations, and on the other deal with the legitimate concerns of career education? This is not an easy question to answer because there are few models available which integrate the scholarly and personal man orientation. Part of the answer might rest with the experience-analysis-application model used in *Perspectives.* Scholarship, after all, is not developed in a vacuum but results from the students' ability to organize experiences according to disciplined patterns of thinking. If career education is a viable concept it should provide rich avenues, both in and outside of school, through which the student can apply this scholarship and knowledge. Less gifted students might require more extensive experience and application opportunities than the gifted students but all students benefit from some combination of its three approaches to learning.

Domains of Response

When teachers are selecting objectives it is important that their rationale consider equally the scholarly, the public, and the personal components of man. At a much more specific level the objectives selected for instruction should be determined on the basis of how they function to develop the scholarly, the public, and the private man. Usually these objectives can be grouped into clusters that roughly parallel the cognitive, affective, and skill components of human learning. There is always a danger in typologies which open up the possibility of oversimplification and misuse. Cognitive, affective, and skill objectives can be separated for the purposes of analysis, but it would be impossible to separate them as distinguishable parts of the individual learning process. Students respond totally to their environment, and learning necessarily involves a simultaneous blending of intellect and emotion in a context of the student's total range of experience. On the other hand, objectives must be purposeful and must be designed so that they can measure behavior change. Teachers should use some systematic basis for determining objectives so that vital areas of potential student learning will not be slighted or ignored. The three-category system which follows was developed at the Price Laboratory School in Cedar Falls, Iowa, and can be used as a general guide in determining objectives. Be more concerned with the general configuration of objectives listed rather than the specific objectives that are mentioned. The terminology used in the following document is different than the terminology used earlier in the Chapter. The following substitutions can be made:

I. Knowledge (Cognitive Domain)
II. Study Skills (Social Studies Skills)
III. Examination of Value System (Affective Domain)

I. Knowledge

The development of a fund of information which can be used by the student in making decisions is an essential aspect of social studies instruction. An increase in knowledge helps acquaint the student with reality and promotes his maturity, thus stimulating social and personal responsibility. Knowledge encourages the student to appreciate and preserve valid features of his cultural heritage; and at the same time, prepares him for adjustment to changing environments.

The development of student knowledge comprises these major categories:

A. Specific Items of Information
  1. Terminology--The vocabulary used in the study of social groups, institutions, processes, and problems.
  2. Specific Facts--Include dates, events, persons, places, and sources of information.
B. Information as to Methods of Dealing with Specifics
  1. Conventions--Common symbols used in maps, charts, graphs, and timelines.
  2. Trends and Sequences--Interrelationships among a number of specific events, social groups, or individuals.
  3. Classifications and Categories--The ways in which students organize phenomena in an academic area or in a social problem for study.
  4. Criteria--The principles used i
judgments, and sources of inf
  5. Methodology--The technique
investigating social problems.
C. Knowledge of the Universals and
  1. Principles and Genera
observations conducted by sc
by the students themselves.
  2. Theories and Structures--Abs
interrelationship of principles

II. Study Skills

The maximum attainment of the ge
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which teachers and students:

A. Recognize and define social
contemporary and historical conte
of selected data, and/or teacher gu
B. Suggest possible causes, solutions,
to the social problem under study.
C. Plan approaches for investigating t
D. Identify and select evidence per
solution, and generalization.
E. Evaluate evidence pertaining to
and generalizations.
F. Formulate tentative conclusion
problem.
G. Recognize areas for further study.

III. Examination of Value Systems

Social studies instruction should pro
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4. Criteria--The principles used in evaluating ideas, opinions, judgments, and sources of information.
5. Methodology--The techniques and procedures used in investigating social problems.

C. Knowledge of the Universals and Abstractions
   1. Principles and Generalizations--Summaries of observations conducted by scholars in academic areas and by the students themselves.
   2. Theories and Structures--Abstractions which represent an interrelationship of principles and generalizations.

II. Study Skills

The maximum attainment of the general social studies goal of providing students with decision-making powers is contingent upon the development of intellectual abilities and skills. It is recognized that students need a combination of knowledge and skill in their modes of operation in dealing with problems. The study of social groups, institutions, processes and problems is well-suited to the development of student ability to engage in reflective thinking. With this intent, the social studies program is characterized by the ways in which teachers and students:

A. Recognize and define social problems in both a contemporary and historical context through student analysis of selected data, and/or teacher guidance.
B. Suggest possible causes, solutions, and generalizations related to the social problem under study.
C. Plan approaches for investigating the problem.
D. Identify and select evidence pertaining to possible causes, solution, and generalization.
E. Evaluate evidence pertaining to possible causes, solutions, and generalizations.
F. Formulate tentative conclusions related to the social problem.
G. Recognize areas for further study.

III. Examination of Value Systems

Social studies instruction should promote student sensitivity to certain values characteristic of the American community as compared with value systems of other cultures. It is through an understanding and appreciation of their own value systems, as well as those of others, that students become aware of the complexity of social problems. Applications of values to specific situations result in controversy, dependent upon one's cultural environment, for

American society is pluralistic with diverse sets of values. However, several root values are generally accepted. One *is a belief in the dignity and worth of each individual.*

Specific values which are related to the promotion of human dignity are the beliefs that an individual has:

A. The right to think, to believe, to speak, to worship according to his own ideals.
B. The right to be secure from physical attack or injury.
C. The right to make agreements with other individuals and have these agreements honored.
D. The right to own personal property and use it within socially acceptable standards.
E. The right to seek an environment which best promotes his personal goals.
F. The right to choose a vocation suited to his talents and abilities.

The second root value accepted in American social institutions and related to the attainment of human dignity is the belief in *free and open discussion as a means to settle social controversies.*

Americans have evolved certain principles to promote rational consent; these are:

A. While each individual possesses certain rights, each is obliged to respect the rights of others.
B. A democratic society is a society of laws administered in a fair and impartial manner.
C. Each individual, regardless of race, color, or creed, participates in social decisions.
D. No one may be deprived of life, liberty, or property without due process of law.
E. Intelligent, but divergent, opinions pertaining to social problems deserve respect.[7]

Groupings like the one suggested in the above document classify objectives according to various domains of human response. The mere determination of objectives according to domains of response will not insure that the behavior is worthwhile.

Levels of Thought

In a study they conducted on teacher behavior, Parsons and

Shaftel found that teachers were virtual
"effective thinking" as the single most im
studies program. Yet when their teaching
3% of the questions these teachers asked i
original thought was required.[8] Becau
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Gronlund has applied the cognitive a
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They summarize the work done by Bl
various levels of thinking and valuing incl
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the type of student activity that charact
sub-groupings. These tables should provi
the level of thought required by your
danger implicit in any system which class
observed behavior. The behaviors are
action words but higher level objectives
manipulation of verbs. An action verb wil
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of Thought

ted on teacher behavior, Parsons and Shaftel found that teachers were virtually unanimous in choosing "effective thinking" as the single most important goal of their social studies program. Yet when their teaching behavior was analyzed only 3% of the questions these teachers asked in class were probing, where original thought was required.[8] Because knowledge changes so quickly, it is futile to spend time developing objectives which stress information which if not already outdated, will be by the time students graduate from school. A more effective approach to meaningful classroom learning is to classify objectives according to their levels of thought.

Gronlund has applied the cognitive and affective taxonomy to the writing of behavioral objectives. Tables 1 and 2 are an adaptation of the way he classified objectives according to their levels of thought.

They summarize the work done by Bloom and Krathwohl on the various levels of thinking and valuing included in their taxonomies of educational objectives. The tables provide enough detail to suggest the type of student activity that characterizes each of the system's sub-groupings. These tables should provide a useful tool for raising the level of thought required by your own objectives. There is a danger implicit in any system which classifies objectives according to observed behavior. The behaviors are described in the tables by action words but higher level objectives require more than the mere manipulation of verbs. An action verb will describe what the student is to do but the content of the objective, its context, and its conditions are also necessary for successful implementation in the classroom. *Substantive transitions* will help teachers classify the levels of thinking and valuing used in their own objectives. The *Illustrative General Instructional Objectives* characterize the types of behavior suggested by the various levels. *Illustrative Behavioral Terms for Stating Specific Learning Outcomes* will help teachers to write these objectives.

Table 1

Examples of General Instructional Objectives and Behavioral Terms for the Cognitive Domain of the Taxonomy[9]

Substantive Transactions	Illustrative General Instructional Objectives	Illustrative Behavioral Terms For Stating Specific Learning Outcomes
1.0 Knowledge--recall of specific universals, recall of methods and processes, or recall of a pattern, structure or setting	Knows common terms Knows specific facts Knows methods and procedures Knows basic concepts Knows principles	Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states
2.0 Comprehension--the type of understanding or apprehension which helps the learner know what is being communicated in order that use could be made of it, but without necessarily seeing its relation or implications for other material.	Understands facts and principles Interprets verbal material Interprets charts and graphs Translates verbal material to mathematical formulas Estimates future consequences implied in data Justifies methods and procedures	Converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, paraphrases, predicts, rewrites, summarizes
3.0 Application--in what ways is the student able to use abstractions, e.g., general ideas, procedural rules, generalized methods, in particular and concrete situations?	Applies concepts and principles to new situations Applies laws and theories to practical situations Solves mathematical problems	Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses.

Substantive Transactions	Illustrative Gene Instructional Obj
3.0 Application (Continued)	Constructs charts graphs Demonstrates co usage of a m of procedure
4.0 Analysis--the breakdown of a communication into its constituent elements or parts in order to more clearly show the relative hierarchy of ideas and/or relations between ideas.	Recognizes un assumptions Recognizes lo fallacies reasoning Distinguishes bet facts and infer Evaluates the relev of data Analyzes organizati structure of a (art, music, wri
5.0 Synthesis--putting together elements and parts so as to form a whole	Writes a well- orga theme Gives a well-orga speech Writes a creative story (or poem music) Proposes a plan fo experiment Integrates learning different areas a plan for solvi problem Formulates a new for classify objects (or eve or ideas)

Table 1

General Instructional Objectives and Terms for the Cognitive Domain of the Taxonomy[9]

Illustrative General Instructional Objectives	Illustrative Behavioral Terms For Stating Specific Learning Outcomes
Knows common terms Knows specific facts Knows methods and procedures Knows basic concepts Knows principles	Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states
Understands facts and principles nterprets verbal material nterprets charts and graphs Translates verbal material to mathematical formulas stimates future consequences implied in data ustifies methods and procedures	Converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, paraphrases, predicts, rewrites, summarizes
pplies concepts and principles to new situations pplies laws and theories to practical situations olves mathematical problems	Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses.

Substantive Transactions	Illustrative General Instructional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
3.0 Application (Continued)	Constructs charts and graphs Demonstrates correct usage of a method of procedure	
4.0 Analysis--the breakdown of a communication into its constituent elements or parts in order to more clearly show the relative hierarchy of ideas and/or relations between ideas.	Recognizes unstated assumptions Recognizes logical fallacies in reasoning Distinguishes between facts and inferences Evaluates the relevancy of data Analyzes the organizational structure of a work (art, music, writing)	Breaks down, diagrams, differentiates, discriminates, distinguishes, infers, outlines, points out, relates, selects, separates, subdivides.
5.0 Synthesis--putting together elements and parts so as to form a whole	Writes a well- organized theme Gives a well-organized speech Writes a creative short story (or poem, or music) Proposes a plan for an experiment Integrates learning from different areas into a plan for solving a problem Formulates a new plan for classifying objects (or events, or ideas)	Categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes.

Substantive Transactions	Illustrative General Instructional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
6.0 **Evaluation**–quantitative judgments about the value of material and methods for given purposes relative to some standards of appraisal	Judges the logical consistency of written material Judges the adequacy with which conclusions are supported by data Judges the value of a work (art, music, writing,) by use of internal criteria Judges the value of a work (art, music, writing) by use of external standards of excellence	Appraises, compares, concludes, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, relates, summarizes, supports.

Table 2

Examples of General Instructional Objectives and Behavioral Terms for the Affective Domain of the Taxonomy[10]

Substantive Transactions	Illustrative General Instructional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
1.0 Receiving (Attending) 1.1 In what ways does the student demonstrate awareness of situations, phenomena, objects, etc. and with what degrees of acuity.	Listens attentively Shows awareness of the importance of learning Shows sensitivity to human needs and social problems	Asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits erect, replies, uses.

Substantive Transactions	Illustrative General Instructional Objectiv
1.0 Receiving (Continued)	Accepts difference race and culture Attends closely to classroom activiti
1.2 In what respects is he willing to receive i.e., conscious of his sensitivity to parts of an area being studied?	
1.3 In what respects does the student exhibit controlled or selected attention?	
2.0 Responding– 2.1 How does the student obey, comply, rebel, etc.? 2.2 In what respects is he willing, etc., unwilling to respond? 2.3 How does he show satisfaction and/or dissatisfaction?	Completes assign homework Obeys school rules Participation in cl discussion Completes laborato work Volunteers for spec tasks Shows interest subject Enjoys helping oth
3.0 Valuing–In what ways does the student show that he is beginning to form an attitude or belief?	Demonstrates belief the democra process Appreciates go literature (a

tive General ional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
s the logical nsistency of itten material the adequacy ith which nclusions are pported by data the value of a ork (art, music, iting,) by use of ternal criteria the value of a ork (art, music, iting) by use of ternal standards excellence	Appraises, compares, concludes, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, relates, summarizes, supports.

ble 2

structional Objectives and ns for the Affective the Taxonomy[10]

tive General tional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
s attentively s awareness of the nportance of arning s sensitivity to man needs and cial problems	Asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits erect, replies, uses.

Substantive Transactions	Illustrative General Instructional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
1.0 Receiving (Continued)	Accepts difference of race and culture Attends closely to the classroom activities	
1.2 In what respects is he willing to receive i.e., conscious of his sensitivity to parts of an area being studied?		
1.3 In what respects does the student exhibit controlled or selected attention?		
2.0 Responding– 2.1 How does the student obey, comply, rebel, etc.? 2.2 In what respects is he willing, etc., unwilling to respond? 2.3 How does he show satisfaction and/or dissatisfaction?	Completes assigned homework Obeys school rules Participation in class discussion Completes laboratory work Volunteers for special tasks Shows interest in subject Enjoys helping others	Answers, assists, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes.
3.0 Valuing–In what ways does the student show that he is beginning to form an attitude or belief?	Demonstrates belief in the democratic process Appreciates good literature (art,	Completes, decribes, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes,

Substantive Transactions	Illustrative General Instructional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
3.0 Valuing (Continued) 3.1 What values does he seem to accept? 3.2 What values does he show a preference for? 3.3 To what does he exhibit commitment or devotion?	music) Appreciates the role of science (or other subjects) in everyday life Shows concern for the welfare of others Demonstrates problem-solving attitude Demonstrates commitment to social improvement	reads, reports, selects, shares, studies, works
4.0 Organization of Values (Begins to internalize) 4.1 As he begins to form a concept of a new value, how does he relate it to his previous and present convictions? 4.2 Is there evidence that the student's values are evolving into a hierarchy?	Recognizes the need for balance between freedom and responsibility in a democracy Recognizes the role of systematic planning in solving problems Accepts responsibility for his own behavior Understands and accepts his own strengths and limitations Formulates a life plan in harmony with his ability, interest and beliefs	Adheres, alters, arranges, combines, compares, completes, defends, explains, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes.

Substantive Transactions	Illustrative General Instructional Objec
5.0 Values complex--Does the child give evidence of beginning to internalize a sort of consistent life philosophy which he is proud to have and by which he regulates action without always moving through a conscious thought process?	Displays sa consciousness Demonstra self-reliance worki independently Practices cooperati group activities Uses objective appr in problem-sol Demonstrates indu punctuality self-discipline Maintains good he habits

Specificity and S

Instructional objectives can be w specificity and the degree of specificatio continuum from very general non-specifi to highly specific and detailed objectives

The continuum developed by Kib objectives into three representative types.

Figure 3[11]

Classification of Obje

General, Nonspecific Objectives

General Educational Objectives

Informational Objectives

ustrative General structional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
music) ppreciates the role of science (or other subjects) in everyday life ows concern for the welfare of others emonstrates problem-solving attitude emonstrates commitment to social improvement	reads, reports, selects, shares, studies, works
ecognizes the need for balance between freedom and responsibility in a democracy ecognizes the role of systematic planning in solving problems ccepts responsibility for his own behavior nderstands and accepts his own strengths and limitations rmulates a life plan in harmony with his ability, interest and beliefs	Adheres, alters, arranges, combines, compares, completes, defends, explains, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes.

Substantive Transactions	Illustrative General Instructional Objectives	Illustrative Behavioral Terms for Stating Specific Learning Outcomes
5.0 Values complex--Does the child give evidence of beginning to internalize a sort of consistent life philosophy which he is proud to have and by which he regulates action without always moving through a conscious thought process?	Displays safety consciousness Demonstrates self-reliance in working independently Practices cooperation in group activities Uses objective approach in problem-solving Demonstrates industry, punctuality and self-discipline Maintains good health habits	Acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, uses, verfies.

Specificity and Structure

Instructional objectives can be written at many levels of specificity and the degree of specification could be represented on a continuum from very general non-specific objectives on one extreme to highly specific and detailed objectives on the other.

The continuum developed by Kibler in Figure 3 classifies objectives into three representative types.

Figure 3[11]

Classification of Objectives

General, Nonspecific Objectives ———————————————— Highly Specific Objectives

General Educational Objectives
Informational Objectives
Planning Objectives

At the most abstract level, general objectives relate to the basic purposes of education in society, while at the most specific level, planning objectives relate to daily classroom instruction. While such *abstract statements as "to educate for citizenship, "to stimulate* creative thinking," or "to develop skills for effective thinking" articulate national goals, they provide very little guidance in terms of classroom implementation. In spite of their generality, statements like this are commonly found in curriculum guides, units of study, and in the justification some teachers give their instructional programs and day-to-day teaching behavior. At the lesson-plan level these idealistic goal-statements often become a ritualistic expression of educational dogma. Rather than promoting effective education, these formalistic statements become substitutes for it, and education suffers as a consequence.

Advocates who represent the specific end of the objectives continuum argue persuasively that performance-based objectives will make teachers responsible for the objectives they teach. Mager's definition of behavioral objective is perhaps the most famous prescription for preparing behavioral objectives, but other formulas are more inclusive and even more precise. According to Kibler, the "planning objectives" outlined in Figure 3 should contain the following five elements:

1. They distinguish *who* is to perform the behavior.
2. They state the actual behavior to be performed.
3. They define the *result* of the behavior in terms of the product or thing being performed.
4. They spell out the *conditions* under which the behavior will be performed.
5. They establish the *standard* or *criterion* against which the behavior is to be evaluated.[12]

The danger of highly specific objectives was demonstrated by Mager himself, for few, if any, of the behavioral objectives used to illustrate his little book required thought above the memory level. The easiest objectives to state behaviorally are often the ones that require the lowest level thought-processes. A flexible approach should be taken when specifying objectives depending on the situation and the purpose of the teacher.

The most useful level of specificity for this handbook would be somewhere in the middle of the continuum corresponding to what Kibler called information objectives. The objectives used in *Perspectives* would represent this level of specificity. In all cases the

objectives describe who is to perform the
cases the actual behavior is specifie
performance is labeled. The missing comp
5, relevant conditions and standards of
conditions are deliberately not included b
of listing the objectives was to communica
concerning the expected outcomes of the
the program as such. Many times the releva
any program will operate cannot be spe
program. A similar lack of forekno
establishment of standards of performance
takes place. The degree of specification
should be determined by the intent of the
a statement of objectives leads to poor t
thoughtless adherence to specific behaviora

Application

You are being asked to participate i
curriculum building. The content, metho
of this chapter and the chapters to follo
where you can make specific applications
The application of new knowledge is a fu
for it will determine the extent to which
will also insure that new practices can in fa
teaching situations. The teaching ac
Perspectives were chosen because they
classroom. In the application sections of
involvement in planning and teaching a uni
it is demanded if you are to receive full be

There will be two types of applicatio
Application "A" will be a mini-applicatio
carefully prescribed application of the cha
segment of curriculum. This will be
application which will model the res
mini-application. Application "B" will de
a partial unit of study.

In **Application "B"** of this chapter

el, general objectives relate to the basic
ciety, while at the most specific level,
daily classroom instruction. While such
educate for citizenship, "to stimulate
develop skills for effective thinking"
y provide very little guidance in terms of
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ching behavior. At the lesson-plan level
ts often become a ritualistic expression
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become substitutes for it, and education

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more precise. According to Kibler, the
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standard or *criterion* against which the
valuated.[12]

pecific objectives was demonstrated by
ny, of the behavioral objectives used to
uired thought above the memory level.
te behaviorally are often the ones that
hought-processes. A flexible approach
ecifying objectives depending on the
the teacher.
f specificity for this handbook would be
f the continuum corresponding to what
objectives. The objectives used in
this level of specificity. In all cases the

objectives describe who is to perform the desired behavior. In most cases the actual behavior is specified, and the product of performance is labeled. The missing components are numbers 4 and 5, *relevant conditions and standards of performance. These two* conditions are deliberately not included because the major purpose of listing the objectives was to communicate the author's intentions concerning the expected outcomes of the program and not to teach the program as such. Many times the relevant conditions under which any program will operate cannot be specified at the start of the program. A similar lack of foreknowledge will prevent the establishment of standards of performance before the act of learning takes place. The degree of specification in any set of objectives should be determined by the intent of the author. Just as too general a statement of objectives leads to poor teaching, so can an equally thoughtless adherence to specific behavioral formulas.

Application

You are being asked to participate in a unique experiment in curriculum building. The content, methods, and educational theory of this chapter and the chapters to follow will bring you to a point where you can make specific applications to your own unit of study. The application of new knowledge is a fundamental part of learning, for it will determine the extent to which learning has taken place. It will also insure that new practices can in fact be adapted to your own teaching situations. The teaching activities used throughout *Perspectives* were chosen because they have applicability in the classroom. In the application sections of *Perspectives*, however, your involvement in planning and teaching a unit is more than encouraged; it is demanded if you are to receive full benefit from the program.

There will be two types of application in the pages that follow. **Application "A"** will be a mini-application requiring you to make a carefully prescribed application of the chapter principles to a limited segment of curriculum. This will be followed by a prototype application which will model the responses asked for in the mini-application. Application "B" will deal with the development of a partial unit of study.

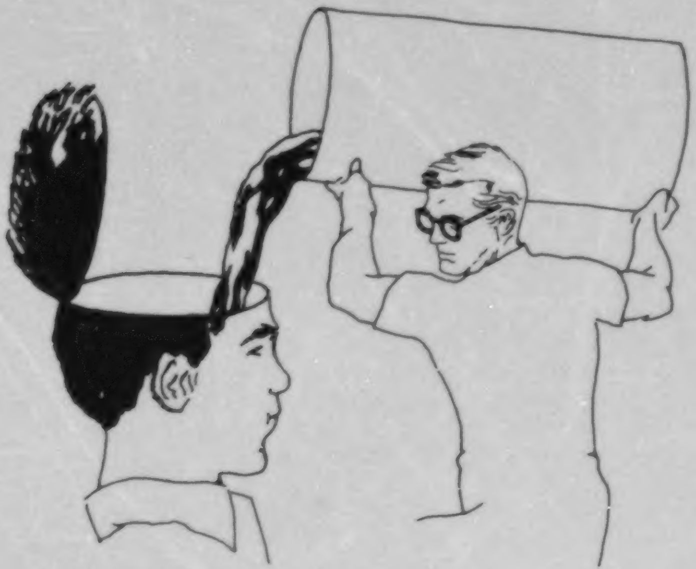
In **Application "B"** of this chapter your activity will be to develop a set of objectives for your chosen unit. This unit will be developed further in the application section of each succeeding chapter until it is completed at the conclusion of Chapter VI and Part I of *Perspectives.*

Application "A": The Development of a Limited Application

Assume the teacher in Figure 4 is applying for an opening in your social studies department. As chairman of the department you have the responsibility not only of evaluating this man's performance with regard to rationale and objectives, but of establishing a set of guidelines against which to measure future applicants.

Although the picture represents only a "still picture" of this man's behavior in the classroom and does not show him over longer periods of time, it does provide some basis for drawing inferences and making judgments about his extended teaching behavior. As part of the interview he was also asked to present a lesson plan for the teaching portrayed in the picture.

Figure 4



Lesson

Lesson One:	The Constitution of th
Objectives:	To develop in stud appreciation of the U. To develop in studen citizenship. To develop in stud democracy.
Methods:	To read to student Constitution line by and drama behind each
Resources:	*The Constitution of th* *and Its Applications* *Constitution and Free* York, 1956.
Evaluation:	A 15-minute multipl over the Preamble segn

Teacher Evaluation

Directions: Listed below are a nu teacher beliefs and practices. appropriate number in the co premise the degree to which th belief or practice. The degree follows:

1. Not implemented
2. Weakly implemented
3. Average implementation
4. Strongly implemented
5. Fully implemented

In the comment sections followi elaborate, if necessary, on the choices yo

With regard to the role orientation of

1. The teacher's objectives reflect that students be equipped with available knowledge from the soci

r your chosen unit. This unit will be
plication section of each succeeding
at the conclusion of Chapter VI and

A”:
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ication

re 4 is applying for an opening in your
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sure future applicants.
resents only a “still picture” of this
m and does not show him over longer
de some basis for drawing inferences
is extended teaching behavior. As part
asked to present a lesson plan for the
re.

ure 4

Lesson Plan

Lesson One:	The Constitution of the United States
Objectives:	To develop in students an understanding and appreciation of the U. S. Constitution. To develop in students the attitudes of stalwart citizenship. To develop in students the basic precepts of democracy.
Methods:	To read to students “The Preamble” of the Constitution line by line elaborating on the story and drama behind each sentence.
Resources:	*The Constitution of the United States: Its Sources and Its Applications* by Thomas James Norton. *Constitution and Free Enterprise Foundation*, New York, 1956.
Evaluation:	A 15-minute multiple choice and matching quiz over the Preamble segment of the Constitution.

Teacher Evaluation Form

Directions: Listed below are a number of premises regarding teacher beliefs and practices. Indicate by circling the appropriate number in the column to the right of each premise the degree to which the subject demonstrates that belief or practice. The degrees of demonstration are as follows:

1. Not implemented
2. Weakly implemented
3. Average implementation
4. Strongly implemented
5. Fully implemented

In the comment sections following each set of questions elaborate, if necessary, on the choices you make.

With regard to the role orientation of students:	**Degree of Implementation**
1. The teacher’s objectives reflect a concern that students be equipped with the best available knowledge from the social sciences	1 2 3 4 5

2. The teacher's objectives reflect a concern that students employ the knowledge and intellectual investigative modes typically used by practicing social scientists 1 2 3 4 5
3. The teacher's objectives reflect a concern that students adapt their values orientation to correspond with the standards, mores, and values defined by the teacher 1 2 3 4 5
4. The teacher's objectives reflect an overriding concern that students make their own value judgments and are able to defend them in light of rational discourse . 1 2 3 4 5
5. The teacher's objectives reflect an overriding concern that students adjust to life experiences in the practical arts, in the home and family, in health and recreation, and in civic competence 1 2 3 4 5
6. The teacher's objectives reflect an overriding concern that true knowledge is "human" growing out of individual choice, consciousness, and feeling 1 2 3 4 5
7. The teacher's objectives reflect a well-rounded set of expectations growing out of a concern for several areas of student growth 1 2 3 4 5

With regard to the domains of response:

8. The content used to achieve the teacher's objectives is cognitive, made up primarily of descriptions, past and present, that explain social phenomena 1 2 3 4 5
9. The content used to achieve the teacher's objectives is process-based stressing the modes of student thinking and valuing more than the actual thought and values they lead to 1 2 3 4 5
10. The content used to achieve the teacher's objectives are drawn from the student himself and the personal dilemmas that face him in areas like sex, work, leisure, religion, politics, death, and self-appraisal . 1 2 3 4 5

11. The content used to achieve
objectives varies according to t
of the teacher, the nature of
and the needs and interests of
at a particular point in time .

With regard to the levels of thought

12. The teacher's objectives require
interpret and apply knowledge
13. The teacher's objectives are se
raise the level of thinking and
students . . . .
14. The teacher's objectives requ
commitment to and action upo
treated in class . . . .
15. The teacher's objectives
investigative skills which will a
in future learning . . . .

With regard to the specificity and s

16. The teacher's objectives are writ
measure success or failure in
student behavior . . . .
17. The teacher's objectives are
reviewed and revised in lig
changing nature of knowledg
changing needs of society
individual . . . .
18. The teacher's objectives are writ
a way that they are supportive
of evaluation he establishes for h

I would recommend this teacher f
ment. Yes____ No____

Explain: ____________________

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ectives reflect a concern
ploy the knowledge and
igative modes typically
social scientists 1 2 3 4 5
ectives reflect a concern
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like sex, work, leisure,
eath, and self-appraisal . 1 2 3 4 5

11. The content used to achieve the teacher objectives varies according to the purposes of the teacher, the nature of the content, and the needs and interests of the student at a particular point in time 1 2 3 4 5

With regard to the levels of thought:

12. The teacher's objectives require students to interpret and apply knowledge 1 2 3 4 5
13. The teacher's objectives are sequenced to raise the level of thinking and valuing in students 1 2 3 4 5
14. The teacher's objectives require student commitment to and action upon the values treated in class 1 2 3 4 5
15. The teacher's objectives promote investigative skills which will aid students in future learning 1 2 3 4 5

With regard to the specificity and structure:

16. The teacher's objectives are written so they measure success or failure in terms of student behavior 1 2 3 4 5
17. The teacher's objectives are constantly reviewed and revised in light of the changing nature of knowledge and the changing needs of society and the individual 1 2 3 4 5
18. The teacher's objectives are written in such a way that they are supportive of the type of evaluation he establishes for his program 1 2 3 4 5

I would recommend this teacher for employment. Yes____ No____

Explain: ____

____

____

____

The recommendation is based on the teacher's adherence (or lack of adherence) to the following criteria:

A) Identify the student role-orientation the teacher is developing. Is the type of response he promotes in students compatible with the response advocated in this document?

B) Identify the domains of response required of students in this class. Are the knowledge skills and attitudes compatible with those advocated in this document?

C) What levels of thinking and valuing are required of students in the class?
Are they compatible with the principles of sound learning?

D) Are the objectives stated in such a way that they can guide

the teacher throughout the l
provide guidelines in evaluating

A Prototype
Recommend

The recommendations which foll
treated in the hypothetical case just
expressed are the author's own opini
"correct" responses, but only the type
been set forth.

First of all, I would not recommend
for he represents the antithesis of what
partly due to his traditional orien
traditionalist. Yet traditional teaching
dehumanization portrayed in the pictur
is the actor and the student is the rea
role-oriented type of instruction wher
behave in certain prescribed ways. Be
relationship, the teacher does the think
notes, and the student reproduces
bluebook format. The roles of the tea
one dimensional, but as long as the subj
instruction met, the teacher earns his
grade, and they are both applauded fo
learning is taking place in the picture.

A. In the area of student role-or
scholarly investigating man th

sed on the teacher's adherence (or lack of
criteria:

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dent role-orientation the teacher is
ype of response he promotes in students
response advocated in this document?

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ledge skills and attitudes compatible with
his document?

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king and valuing are required of students

with the principles of sound learning?

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stated in such a way that they can guide

the teacher throughout the lesson and at the same time provide guidelines in evaluating the students?

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A Prototype Set of Recommendations

The recommendations which follow will parallel the issues treated in the hypothetical case just completed. The statements expressed are the author's own opinions and in no way suggest "correct" responses, but only the type of responses that might have been set forth.

First of all, I would not recommend the teacher for employment, for he represents the antithesis of what I feel is good teaching. This is partly due to his traditional orientation, because I'm not a traditionalist. Yet traditional teaching can be effective without the dehumanization portrayed in the picture. In the picture the teacher is the actor and the student is the reactor. The picture portrays a role-oriented type of instruction where teacher and student alike behave in certain prescribed ways. Because of the role-expectancy relationship, the teacher does the thinking as he prepares his lecture notes, and the student reproduces these notes in the typical bluebook format. The roles of the teacher and student are rigid and one dimensional, but as long as the subject is covered and the goal of instruction met, the teacher earns his money, the student gets his grade, and they are both applauded for their effort. Very little real learning is taking place in the picture.

A. In the area of student role-orientation I would stress the scholarly investigating man through most of the lesson although I would apply the learning to areas of public and personal concern. I would treat the "Preamble" of the Constitution as literature and explore its emotional appeal as an example of the concept political socialization. The content I would spend most of the class period on would be the "Bill of Rights" because it provides an excellent opportunity to explore political behavior. The rationale for treating political behavior centers on the fact that all individuals are political beings and an understanding of political behavior is necessary for survival. Government is an organized threat-system that mitigates disputes, settles conflicts, and maintains societal order. It can also be a means of bringing about consensus and insuring cooperation among people. The "Bill of Rights" is a living example of how government can serve the society that created it.

B. The general objectives which follow indicate the range of behavior expected of students while working with the "Bill of Rights." The objectives treat the cognitive, affective, and skill areas of behavior.
   1) The students will use the "Bill of Rights" to develop key political concepts and explore the nature of political conflict and the "rule of law."
   2) The students will appreciate the constitution for the practical wisdom it contains.
   3) Students will be able to examine historical documents for their implied assumptions, and inquire into the political motivations of the people who wrote them.

C. Based on the list of general objectives mentioned above, the informational objectives which follow indicate the levels of thought required of students as they work through the lesson.
   1) Students will be able to demonstrate an understanding of multiple causality by citing historical evidence concerned with the writing of the Constitution which was symptomatic of the deeper social, economic and political divisions within the country.
   2) Students will clarify their own values by engaging in rational debate over current issues dealing with such topics as freedom of religion, speech, and the right of assembly. Through this debate students will affirm for themselves the wisdom behind the first ten amendments to the Constitution.
   3) Students will be able to exa
   writing and determine its deg
   using such concepts as
   "stereotypes," and "propagand

D. The test item which follows wil
evaluation item that students mig
at the conclusion of the lesson. T
No. 2.

Test Item

Suppose for the purposes of this
of the Supreme Court. How wou
following complaint and how would y
A taxpayer complains that the
Pageant in the local public school is u

Application "B":
The Development
Limited Applicati

Writing good objectives is an intera
teacher, the subject-matter content, and
students. It may be impossible at this po
objectives unless you have a fairly goo
instructional procedures to be used in the

Directions: Use the model on page 15
objectives for your unit which
expanded later, particularly in lig
Chapter II, on "Questioning".

Notes

1 Christopher Jencks, *Inequality: A*
of Family and Schooling in America (New

2 Alan Tom, *An Approach to Selec*

ply the learning to areas of public and
would treat the "Preamble" of the
ure and explore its emotional appeal as
concept political socialization. The
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re political behavior. The rationale for
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ecessary for survival. Government is an
em that mitigates disputes, settles
ns societal order. It can also be a means
sensus and insuring cooperation among
Rights" is a living example of how
the society that created it.
s which follow indicate the range of
students while working with the "Bill
tives treat the cognitive, affective, and

use the "Bill of Rights" to develop key
and explore the nature of political
ule of law."
l appreciate the constitution for the
t contains.
ble to examine historical documents for
mptions, and inquire into the political
people who wrote them.
eneral objectives mentioned above, the
es which follow indicate the levels of
students as they work through the

ble to demonstrate an understanding of
by citing historical evidence concerned
g of the Constitution which was
e deeper social, economic and political
e country.
rify their own values by engaging in
ver current issues dealing with such
of religion, speech, and the right of
h this debate students will affirm for
dom behind the first ten amendments

to the Constitution.

3) Students will be able to examine politically motivated writing and determine its degree of accuracy or bias by using such concepts as "frame of reference," "stereotypes," and "propaganda."

D. The test item which follows will demonstrate the type of evaluation item that students might be expected to complete at the conclusion of the lesson. This then evaluates Objective No. 2.

Test Item

Suppose for the purposes of this question that you are a Justice of the Supreme Court. How would you rule in answer to the following complaint and how would you justify your ruling?

A taxpayer complains that the holding of a Christian Nativity Pageant in the local public school is unconstitutional.

Application "B": The Development of a Limited Application

Writing good objectives is an interactive process between the teacher, the subject-matter content, and the anticipated behavior of students. It may be impossible at this point to write well-developed objectives unless you have a fairly good idea of the content and instructional procedures to be used in the unit you are developing.

Directions: Use the model on page 15 to develop a set of general objectives for your unit which can be elaborated and expanded later, particularly in light of what will be treated in Chapter II, on "Questioning".

Notes

1 Christopher Jencks, *Inequality: A Reassessment of the Effects of Family and Schooling in America* (New York, 1973).

2 Alan Tom, *An Approach to Selecting Among Social Studies*

Curricula (St. Ann, Missouri, 1970).

3 *Ibid.*, p. 63. Used with permission of the publisher, CEMREL, Inc. Copyright 1970 by CEMREL, Inc., 10646 St. Charles Rock Road, St. Ann, Missouri 63074.

4 Joseph J. Schwab, "Structure of the Disciplines: Meaning and Significance," *The Structure of Knowledge and the Curriculum,* ed. G.W. Ford and Lawrence Pugnow (Chicago, 1964), pp. 293-294.

5 Tom, p. 62.

6 American Vocational Association, "Task Force Report on Career Education," *American Vocational Journal,* XLVII (January 1972), p. 12.

7 Malcolm Price Laboratory School, "The Social Studies Program: Nursery-Grade Twelve," Cedar Falls, Iowa, 1972, pp. 1-3. Reprinted by permission of the Malcolm Price Laboratory School, University of Northern Iowa, Cedar Falls.

8 Theodore Parsons and Fannie Shaftel, "Thinking and Inquiry: Some Critical Issues," *Effective Thinking in the Social Studies,* 37th Yearbook: National Council for the Social Studies (Washington, D.C., 1967), pp. 123-166.

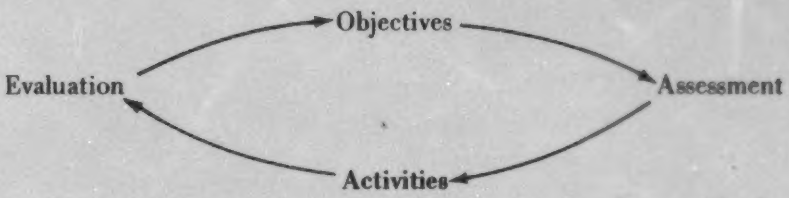
9 Norman E. Gronlund, *Stating Behavorial Objectives for Classroom Instruction* (New York: The Macmillian Co., 1970), p. 21. Reprinted by permission of the author. Tables 1 and 2 are the same as Gronlund's with the addition of substantive transactions which review the taxonomy classifications.

10 *Ibid.*, p. 23.

11 Robert J. Kibler, Larry L. Barker, and David T. Miles, *Behavioral Objectives and Instruction.* c 1970 by Allyn and Bacon, Inc. Used with permission.

12 *Ibid.*, p. 33. Adapted with permission of the publisher, Allyn and Bacon, Inc.

Chapter II Questioning



So far the major concern of *Perspectives* has been with the question, "What should be taught?" Any discussion of educational objectives must eventually deal with the purpose of education. Basic to this discussion is a clear understanding of the difference between **learning** and **instruction. Instruction** implies the process of imparting certain knowledge, skills and attitudes. **Learning**, on the other hand, implies the attainment of certain knowledge, skills and attitudes. *Objectives which specify learning outcomes in terms of student behavior will define the purpose of education as learning. Once learning is established as an end of education, it is appropriate to look at how instruction can become a means of achieving this end.*

The present chapter will take up the question, "What constitutes thinking?" The focus will be on "questioning," which relates back to the hierarchies of educational objectives already treated. The activities of the chapter will place questioning in an instructional context. In treating questioning, the reader will be asked to recognize differences in subject-matter content, differences in teacher questions and response patterns, and differences in students' abilities. The reader will evaluate the effectiveness of the chapter by being asked to structure a learning situation which places the burden of thought on the student.

Experience

Notes to the teacher

The content in this exercise will introduce you to a settlement theme approach to geography. The methodology in the exercise will require you to perform the following cognitive tasks:

- The first task is based on concept attainment in which you will hypothesize about the best possible site location for two settlements in 1800 and 1830.
- The second task builds on the categories you generated in the first task and requires that you make inferences and draw limited generalizations about all site locations.
- The final cognitive task will provide you an opportunity to

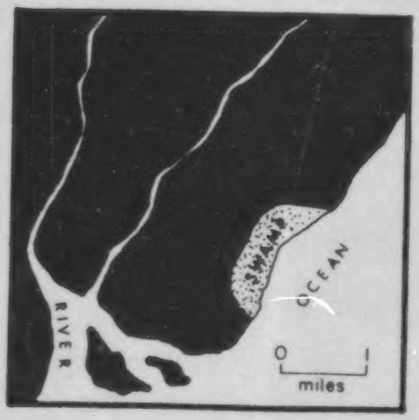
apply your generalizations to a third site location map. Based on this experience you will analyze the type of teacher questions used in a hypothetical lesson on similar site selection material.

Task 1: Site Diagrams

Directions: Assume the areas shown below are within the continental United States. Circle the letter representing the site at which you think a settlement is most likely to develop in the year indicated. Be prepared to give reasons for your choice.

Figure 1

Site Maps*



1800 (ABCD)

Reasons for your choice of _____

1)

2)

3)

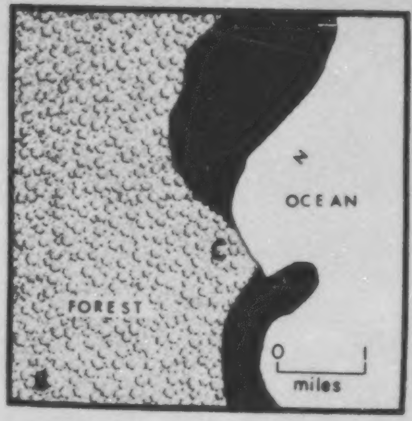
4)

Reasons for not choosing: (the remaining three sites)

(A) (B)	(B) (C)	(C) (D)
1)	1)	1)
2)	2)	2)
3)	3)	3)

---

*"The Growth of Cities" [Unit II], *Geography in an Urban Age* (Washington, D.C., 1967), p. 30. Reprinted by permission of the Association of American Geographers, Washington, D.C. Copyright © 1967 by Association of American Geographers.



1830

Reaso

1)

2)

3)

4)

Reasons for not choosing: (The remaini

(A) (B)	(B) (
1)	1)
2)	2)
3)	3)

Based on your experience from the p
data supplied in the two maps, you s
attributes that make up the concept of site

Site Location

(Attributes)

1)

2)

3)

4)

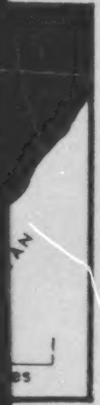
5)

zations to a third site location map. Based you will analyze the type of teacher a hypothetical lesson on similar site

te Diagrams

e areas shown below are within the States. Circle the letter representing the ink a settlement is most likely to develop d. Be prepared to give reasons for your

Figure 1
Site Maps*



1800 (ABCD)

Reasons for your choice of ______

1)

2)

3)

4)

(the remaining three sites)

(B) (C)

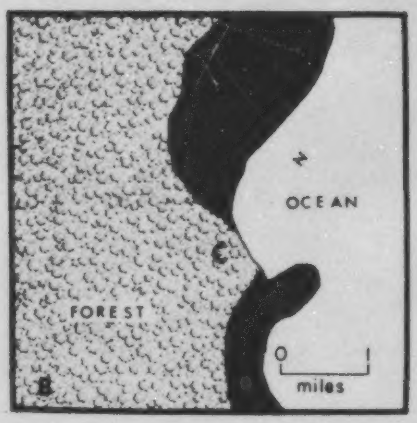
(C) (D)

1)

2)

3)

II], *Geography in an Urban Age* (Washington, by permission of the Association of American Copyright © 1967 by Association of American



1830 (ABCD)

Reasons for your choice of ______

1)

2)

3)

4)

Reasons for not choosing: (The remaining three sites)

(A) (B)	(B) (C)	(C) (D)
1)	1)	1)
2)	2)	2)
3)	3)	3)

Based on your experience from the previous exercise and on the data supplied in the two maps, you should be able to list the attributes that make up the concept of site location.

Site Location

(Attributes)

1)

2)

3)

4)

5)

Neither map is detailed enough to give very precise answers about where site location would take place, although a considerable amount of geographical data is provided in the maps. A fairly strong case can be made for choosing site "A" in 1800 and site "C" in 1830, but not without considerable debate. Some of the site features might include physical environment, topography, habitat and natural resources. Locational factors might include time, settlement patterns, transportation, and land use. The attributes of the concept "site location" would be based on the site features and location factors that would account for the probable location and growth of urban settlement. They might include such things as protected port facilities, potential transportation networks, growth potential, food and water resources, economically exploitable resources, etc.

Task 2: Generalizing From the Site Diagrams

Knowing what you do from having completed Task No. 1 you can now move on to Task No. 2.

Directions: Answer each of the questions 1-3 with a two-part answer. In space "A" under the question treat the content of the question providing the appropriate response. In space "B" under the question describe if you can, the type of thought process you used to answer the question. Answer questions 4-6 in the usual manner.

1) What were the major similarities you noted when choosing a site from the first map as opposed to the second?

A)

B)

2) What were the major differences you noted when choosing a site from the first map as opposed to the second?

A)

B)

3) If you rank ordered (from most
attributes of site selection for the
a similar rank ordering differ if it re
the 20th Century?

A)

B)

4) What difference would it have ma
1800 and 1830 were:

A) Farmers?

B) Fishermen?

C) Trappers?

5) It was assumed that both sites were
States. What attribute change, if a
site location maps represented locati

6) Prepare a series of generalizations
between biological, cultural, and
influence man's settlement pattern

7) Did the answers of questions 3-
thought process that were not util
1-2? Describe them.

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m having completed Task No. 1 you .

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milarities you noted when choosing a s opposed to the second?

ences you noted when choosing a posed to the second?

B)

3) If you rank ordered (from most to least important) the attributes of site selection for the 19th Century, how would a similar rank ordering differ if it represented site selection in the 20th Century?

A)

B)

4) What difference would it have made if the settlers in both 1800 and 1830 were:

A) Farmers?

B) Fishermen?

C) Trappers?

5) It was assumed that both sites were in the continental United States. What attribute change, if any, would there be if the site location maps represented locations in Asia?

6) Prepare a series of generalizations that show a relationship between biological, cultural, and physical factors that influence man's settlement patterns, past and present.

7) Did the answers of questions 3-6 require any types of thought process that were not utilized to answer questions 1-2? Describe them.

In questions number 1 and 2 you were required to note similarities and differences in the two maps. The information was provided and all you were required to do was to list similarities and differences. Question number 3 required considerably more thought because it forced you to rank order site-behavior attributes according to their importance at two different periods of time. While question number 3 explored time as an attribute on site behavior, questions 4 and 5 explored the attributes of land use and culture. Finally, in the answer to question number 6 you brought the site features discussed in questions 1-2 together with the more abstract locational features used in answering questions 3-5. Question 7 required you to reflect on the varied levels of thought required by Task No. 2.

Task 3: Application of Principles

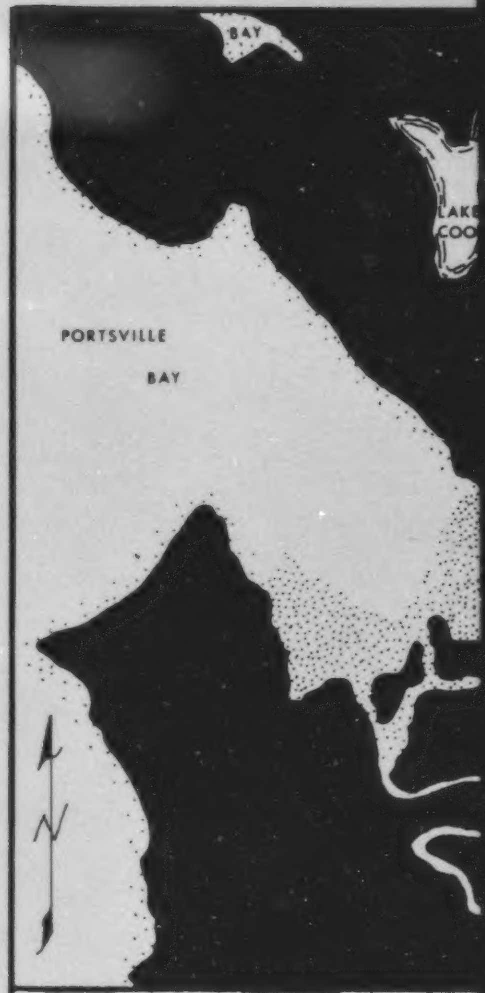
Directions: Based on the introductory reading and the "Portsville Map"[1] you are to apply the concepts and generalizations gained in Task No. 1 and Task No. 2 to a new site location. Based on the information provided in the introduction and on the Portsville map determine where you think the site was located and circle the site number. A reflection back on the complicated thought processes used in site selection will show that more is involved in learning than simply circling the correct number on the Portsville map. You will conclude the task by exploring how questions can be used to sequence student thought through the same Portsville activity.

Introduction to Portsville Activity

In November 1851, the small ocean schooner *Exact* was sailing along the west coast of the continent. She was bound for the Queen Charlotte Islands in search of gold, but the captain had been persuaded to carry twenty-four passengers to a vaguely described site along the ship's route.

These twenty-four passengers, five families in all, had

(Continued on page 36)



PORTSVILLE–
PHYSICAL CHARACTERIS

Figure 2

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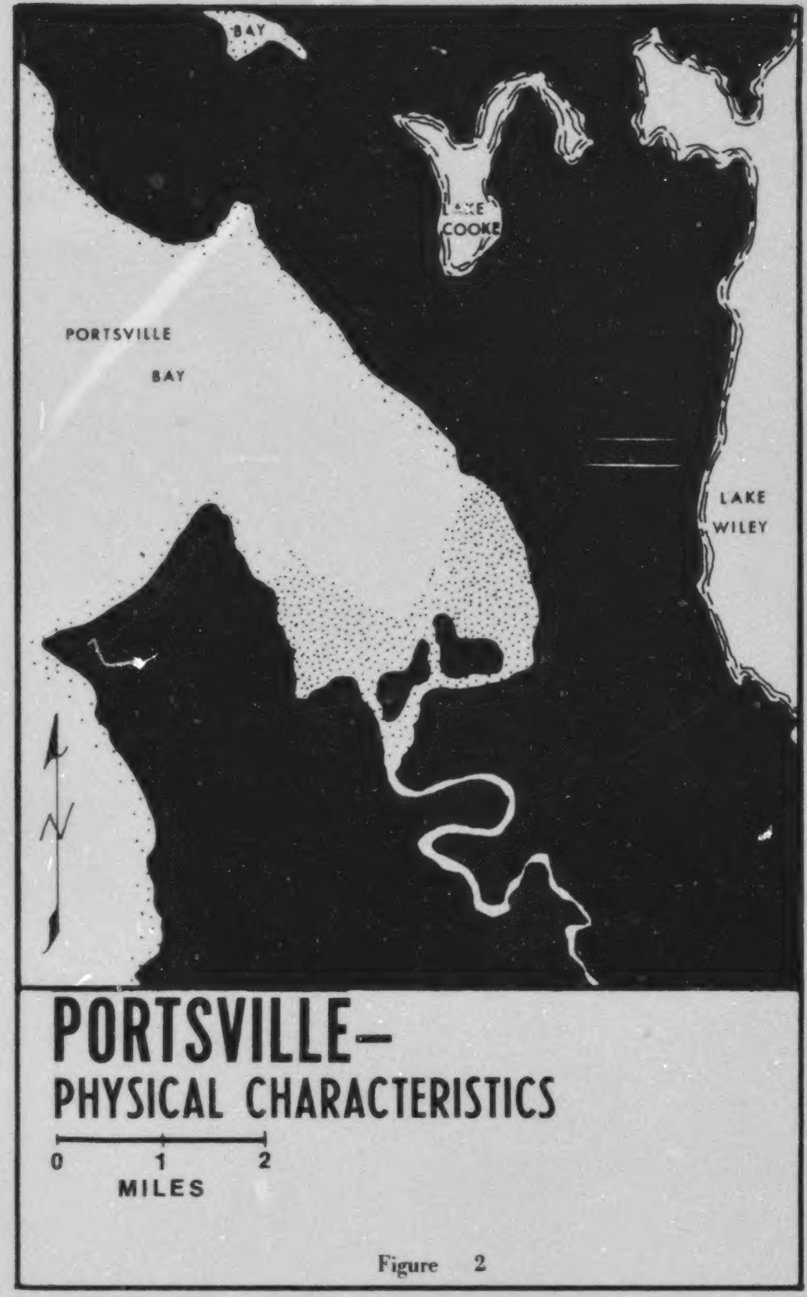

PORTSVILLE—
PHYSICAL CHARACTERISTICS

Figure 2

journeyed overland from their farms in Illinois to the West Coast. On reaching Portland, they heard of vast forests further north. Whoever got there first and staked his claim could expect to make a fortune from those trees. As the families rested up from their long migration, two of the sons went ahead and scouted the territory. In a few weeks one of the scouts, John Lowe, returned and excitedly stammered out the news. The "Perfect Spot" had been found and he and David Denny had already begun building. They called the settlement "New York" for they were sure it would soon grow to be as great as the real New York back East.

Placing a circle around the correct answer on the Portsville map was an end result of a very complicated set of thought processes. The purpose of the dialogue which follows is to demonstrate that a thoughtful questioning strategy can sequence discussion through a similar set of thought processes. For the purposes of the exercise a hypothetical dialogue will serve but the dialogue is "idealized" and would not necessarily reflect the give and take of a real classroom situation. With the exception of the initial questions used for purposes of illustration, only the student answers are provided in the dialogue that follows. Based on the answers given, design an appropriate teacher question that would elicit the type of student response that is made. (In what way would a similar set of questions have aided your earlier task of site selection?)

Hypothetical Dialogue

Question No. 1:

Tchr: *How would you describe the Portsville settlers in 1851 in terms of their background, their expectations and their plans for the future?*

Answer No. 1:

Std 1: We know the Portsville settlers were interested in lumbering, probably for the potential California market growing out of the discovery of gold in 1849. The settlers were also interested in a permanent location, for Portsville was expected to grow to the size of New York.

Question No. 2:

Tchr: ______________________________

____

Answer No. 2:

Std 2: In all likelihood they would
them from the open sea a
from their enemies. They w
resources they would use to
would also need transportat
the goods they developed. I
have water for drinking or p
machinery. The land should
shelter and housing and spac
imported.

Question No. 3:

Tchr: ______________________________

____

Answer No. 3:

Std 1: I would eliminate site 2 an
they are not close to the ocea
abundant fresh water and
lumber along the lake shore
any way to get the lumber o

Std 2: I would eliminate site 1 and
First, although site 1 has pr
the map scale would indicat
the type of city the settler
although site 7 has plenty
would be problems with l
Once the lumber was cleared
settlers would need to trav
more.

Question No. 4:

Tchr: ______________________________

____

Answer No. 4:

Std 3: I would say site 6 is the best
it is protected from the o
power and a source of trans
into the bay for processing a

Question No. 5:

Tchr: ______________________________

____

d from their farms in Illinois to the West
g Portland, they heard of vast forests
oever got there first and staked his claim
nake a fortune from those trees. As the
from their long migration, two of the
nd scouted the territory. In a few weeks
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othetical Dialogue

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e Portsville settlers were interested in
robably for the potential California
ng out of the discovery of gold in 1849.
were also interested in a permanent
Portsville was expected to grow to the
ork.

____

____

Answer No. 2:

Std 2: In all likelihood they would want a site that protects them from the open sea and from possible attack from their enemies. They would want to be near the resources they would use to make their livings. They would also need transportation facilities to ship out the goods they developed. It would be desirable to have water for drinking or possibly for power to run machinery. The land should also provide materials for shelter and housing and spaces to grow food if it isn't imported.

Question No. 3:

Tchr: ______________________________________

____

Answer No. 3:

Std 1: I would eliminate site 2 and 4 immediately because they are not close to the ocean. Both sites would have abundant fresh water and provide easy access to lumber along the lake shores but there wouldn't be any way to get the lumber onto the ships for export.

Std 2: I would eliminate site 1 and 7 for different reasons: First, although site 1 has protection from sea winds the map scale would indicate it is too small a bay for the type of city the settlers had in mind. Second, although site 7 has plenty of ocean frontage there would be problems with lumbering in the future. Once the lumber was cleared from the headlands the settlers would need to travel great distances to get more.

Question No. 4:

Tchr: ______________________________________

____

Answer No. 4:

Std 3: I would say site 6 is the best possible location because it is protected from the ocean and is a source of power and a source of transportation to get the logs into the bay for processing and for shipment.

Question No. 5:

Tchr: ______________________________________

____

Answer No. 5:

Std: 1 The agruments for site 6 sound convincing, but look at how the river meanders. The land around it must be subject to flooding. The land around site 6 is probably swampy and full of mosquitoes--hardly a healthy place to live.

Std: 2 The two islands would indicate that the southern end of the bay is full of silt. If this is true how could ships get close to the settlement for loading purposes, particularly if the tide is out?

Question No. 6:

Tchr: ______________________________

____

Answer No. 6:

Std 3: Probably site 3 or 5 would be best. It really depends on how deep the bay is at either of the points. The land is hilly and skid roads could be built to bring the logs to the settlement. Once the area around the settlement is logged, it is only two or three miles to Lake Wiley which would provide access to thousands of acres of virgin timber. In the latitude of Portsville there would be plenty of rain and fresh water would not be an immediate problem.

Question No. 7:

Tchr: ______________________________

____

Answer No. 7:

Std 4: If you were to make a final decision between 3 and 5 you would want additional information on the topography of the land. You would want to know where the places to find ground water are and know the direction of the valleys. You would want to know the depths of the bay at both locations, particularly when the tide is out.

Prototype Questions Task 3

The teacher Question No. 1 requires students to look into the unique nature of the settlement problem in terms of the settlers' backgrounds and their expectations for the future. The teacher

questions which follow would illust
comments recorded in Task No. 2.

No. 2. What factors would
site?
No. 3, Which site locations
No. 4, Which site location
No. 5, Would anyone chal
No. 6, Does anyone have
the best site?
No. 7, To make a final
information would y

Reflections on the Site-Lo

1) Did the questions asked in the v
require different level thought pr
2) How did the question asked of y
2, and Task No. 3 differ? If they
up a name to fit the groupings?
3) How did the geographic content
No. 3 differ? What relationship
content used and the type of ques
4) How did the experience with Tas
you with the Portsville activit
students in the hypothetical cla
experience?
5) Compare teacher Question No. 1
with teacher Question No. 7. Ho
have been reversed in the dial
asked before question 1?
6) Would knowledge that Ports
Washington, have helped or hi
required of students?

Analysis

The questions posed above will sug

ents for site 6 sound convincing, but look
e river meanders. The land around it must
to flooding. The land around site 6 is
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want additional information on the
of the land. You would want to know
laces to find ground water are and know
n of the valleys. You would want to know
of the bay at both locations, particularly
de is out.

pe Questions Task 3

No. 1 requires students to look into the
lement problem in terms of the settlers'
pectations for the future. The teacher

questions which follow would illustrate the type of student comments recorded in Task No. 2.

No. 2, What factors would you consider in choosing the site?
No. 3, Which site locations would not be desirable?
No. 4, Which site location would be most desirable?
No. 5, Would anyone challenge the choice just made?
No. 6, Does anyone have a different hypothesis about the best site?
No. 7, To make a final decision what additional information would you like?

Reflections on the Site Location Experience

1) Did the questions asked in the various site selection activities require different level thought processes?
2) How did the question asked of you in Task No. 1, Task No. 2, and Task No. 3 differ? If they did differ, could you make up a name to fit the groupings?
3) How did the geographic content in Tasks No. 1, No. 2, and No. 3 differ? What relationship exists between the type of content used and the type of questions asked?
4) How did the experience with Task No. 1 and Task No. 2 help you with the Portsville activity? Would you assume the students in the hypothetical class had a similar background experience?
5) Compare teacher Question No. 1 of the hypothetical dialogue with teacher Question No. 7. How do they differ? Could they have been reversed in the dialogue with Question 7 being asked before question 1?
6) Would knowledge that Portsville is actually Seattle, Washington, have helped or hindered the level of thinking required of students?

Analysis

The questions posed above will suggest that the various tasks were developmental as was the type of thought required to complete each of the tasks. In Task No. 1 you experienced the concept of site location and described the attributes that make up the concept. In Task No. 2 you made inferences about the concept and drew generalizations *about some of the more abstract properties of the* concept. In Task No. 3, you applied the concept to a new and different set of historical and geographical conditions. The content of the tasks differed, for the maps used in Task No. 1 were relatively simple while in Task No. 3 the map was considerably more detailed and required a sophisticated use of the concept. The questions posed by the teacher in Task No. 3 represent the type of questions asked of the reader as he moved through the tasks. Question No. 1 began the lesson by requiring the students to list the information that was given, and the lesson concluded by asking for information that was not given. Had Seattle rather than Portsville been used, most of the information could have been found in an atlas.

These developmental aspects of learning were introduced earlier in the "Objectives" chapter. Even though Bloom and Krathwohl focused on objectives in their *Taxonomy of Educational Objectives* the classification system can be easily applied to classroom questions. Sanders, for example, has modified the Bloom taxonomy into a system which enables the teacher to classify written questions according to their level of thought in much the same way that objectives can be classified. Use the Sanders system which follows and compare his categories with the ones you developed when answering the Site Selection questions.

The Sanders System[2]

Memory:	*The student* recalls or recognizes information
Translation:	*The student* changes information into a different symbolic form of language.
Interpretation:	*The student* discovers relationships among facts, generalizations, definitions, values, and skills.
Application:	*The student* solves a lifelike problem that requires the identification of an issue and the selection and uses of appropriate generalizations and skills.

Analysis:	*The student* solv conscious know forms of thinking
Synthesis:	*The student* solve *original, creative*
Evaluation:	*The student* mak bad, right or wro he designates.

Grouping questions according to level
part of the instructional process used in
Questions, however, are never asked i
effectiveness will depend as well on the tot
which they are a part. The instructional e
analysis section is made up of such factors

A. Teacher Goals
B. Instructional Sequence
C. Teacher-Student Interaction
D. Individual Student Abilities

Teachers' Goal Classroom Que

Any discussion dealing with the total l
distinguish between "role-oriented" and "
In "role-oriented" education the teacher ar
behave in certain prescribed ways. Often th
to a teacher-dominated learning environ
thinking is performed as the teacher prepa
then reproduced by students in the typical

The roles of the participants are rigid ar
long as the subject is covered and the go
school continues along much as it alw
education, behavior becomes purposefu
behavior is questioned.

Fraenkel[3] suggests that questioning s
self-analysis and consist of queries like: "W
am I going? What do I want to accom
accomplish this? How can I most effective
to accomplish?" Once the teacher deter

as the type of thought required to complete
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of thought in much the same way that
ed. Use the Sanders system which follows
ries with the ones you developed when
on questions.

e Sanders System[2]

The student recalls or recognizes
information

he student changes information into a
ifferent symbolic form of language.

he student discovers relationships among
acts, generalizations, definitions, values,
nd skills.

he student solves a lifelike problem that
equires the identification of an issue and
he selection and uses of appropriate
eneralizations and skills.

Analysis: *The student* solves a problem in light of conscious knowledge of the parts and forms of thinking.

Synthesis: *The student* solves a problem that requires original, creative thinking.

Evaluation: *The student* makes a judgement of good or bad, right or wrong, according to standards he designates.

Grouping questions according to levels of thought will explain part of the instructional process used in the site-selection activity. Questions, however, are never asked in a vacuum, and their effectiveness will depend as well on the total learning environment of which they are a part. The instructional environment treated in this analysis section is made up of such factors as:

A. Teacher Goals
B. Instructional Sequence
C. Teacher-Student Interaction
D. Individual Student Abilities

Teachers' Goals and Classroom Questions

Any discussion dealing with the total learning-environment must distinguish between "role-oriented" and "task- oriented" education. In "role-oriented" education the teacher and student are expected to behave in certain prescribed ways. Often this "role orientation" leads to a teacher-dominated learning environment where most of the thinking is performed as the teacher prepares his lecture notes and is then reproduced by students in the typical evaluation format.

The roles of the participants are rigid and one-dimensional, but as long as the subject is covered and the goal of instruction met, the school continues along much as it always has. In task-oriented education, behavior becomes purposeful because the teacher's behavior is questioned.

Fraenkel[3] suggests that questioning should start with teacher self-analysis and consist of queries like: "Why am I doing this? Where am I going? What do I want to accomplish? Why do I want to accomplish this? How can I most effectively accomplish what I wish to accomplish?" Once the teacher determines his purpose with a given set of materials, then he can more readily determine the type of questioning appropriate for his students. Fraenkel went on to suggest a taxonomy of questioning based on the purposes of the teacher. *Once the purpose is determined,* the questions can be grouped as to type and as to the behavior they elicit. This classification is shown in Figure 3.

Figure 3

Frankel's Taxonomy of Questions

Purpose	**Type of Question**	**Student Action Desired**
1. Knowledge acquisition	Factual	Remembering
2. Knowledge synthesis	Descriptive	Remembering
3. Knowledge analysis	Explanatory	Reasoning Exercising judgment
4. Creative thought	Heuristic	Divergent thinking

If the teacher's purpose is simple knowledge acquisition, he would ask the "who," "what," "when," and "where" type of question. If he wants to have the students determine relationships and discover meaning, the teacher would ask descriptive "how" type of questions requiring comparison, contrasting, and synthesis. Analysis will require the "why" type of questions at level 3 in which students infer relationships, determine causation, and use their reasoning potential. Finally, if the teacher's purpose is to achieve creative thought on the part of the students, heuristic questions would be used. Heuristic questions require students to determine their own answers which may range freely across the cognitive and affective domains of human learning. Although Fraenkel's approach to classroom questioning is based on common sense, his important message is that purpose and direction must come from within the teacher and only then will task-oriented education be possible.

Another legacy of "role-oriented"
content coverage. In their role of subj
are often expected to cover prescrib
content. As a result, they become lock
on chronologically-ordered history or
Self-analysis of the type suggested
challenge some of the assumptions
sequence, but unless teachers have alt
time-honored patterns, little improven
teaching is a viable alternative to co
sequencing instruction. The ability t
meaningful concepts will require th
sequenced in such a way that higher-le
place. The three charts which follow
which was developed by Hilda Taba
Social Studies Project. The charts su
sequenced to bring about concept lea
theory underlying the Taba approach
illustrated in a model lesson following th

Chart I[4]

Developing Co
Listing, Grouping, an

This task requires students to grou
kind of basis. The teaching strategy c
following questions, usually in this orde

Teacher Asks:	Student:
What do you see (notice, find) here?	Give items
Do any of these items seem to belong together?	Finds so similarity as a b for grouping ite

(Continu

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onal Sequence and room Questions

Another legacy of "role-oriented" instruction is the problem of content coverage. In their role of subject-matter specialists, teachers are often expected to cover prescribed amounts of subject-matter content. As a result, they become locked into courses of study based on chronologically-ordered history or regionally-defined geography. Self-analysis of the type suggested by Fraenkel would certainly challenge some of the assumptions underlying traditional course sequence, but unless teachers have alternative approaches to those time-honored patterns, little improvement can take place. Concept-teaching is a viable alternative to content coverage as a way of sequencing instruction. The ability to organize information into meaningful concepts will require the use of teacher questions, sequenced in such a way that higher-level student thinking will take place. The three charts which follow outline a model of teaching which was developed by Hilda Taba as part of the Contra Costa Social Studies Project. The charts suggest how questions can be sequenced to bring about concept learning in the classroom. The theory underlying the Taba approach to concept teaching will be illustrated in a model lesson following the charts.

Chart I [4]

Developing Concepts

Listing, Grouping, and Labeling

This task requires students to group a number of items on some kind of basis. The teaching strategy consists of asking students the following questions, usually in this order.

Teacher Asks:	Student:	Teacher Follow Through:
What do you see (notice, find) here?	Give items	Makes sure items are accessible to each student. For example: (itemize on) Chalkboard Transparency Individual list Pictures Item card
Do any of these items seem to belong together?	Finds some similarity as a basis for grouping items	Communicates grouping. For example: Underlines in

(Continued)

Teacher Asks:	Student:	Teacher Follow Through:
		colored chalk Marks with symbols Arranges pictures or cards
Why would you group them together?	Identifies and verbalizes the common characteristics of items in a group	Seeks clarification of response when necessary
What would you call these groups you have formed?	Verbalizes a label (perhaps more than one word) that appropriately encompasses all items	Records
Could some of these belong in more than one group?	States different relationships	Records
Can we put these same items in different groups?	States additional different relationships	Communicates grouping

---

Chart II[5]

Inferring and Generalizing

This cognitive task requires the students to interpret, infer, and generalize about data. The teaching strategy consists of asking the students the following questions, usually in this order.

Teacher Asks:	Student:	Teacher Follow Through:
What did you notice? See? Find? What differences did you notice (with response to a particular question)?	Gives items	Makes sure items are accessible. For example: Chalkboard Transparency Individual list Pictures Item card
Why do you think this happened? or	Gives explanation which may be based	Accepts explanation. Seeks

(Continued)

Teacher Asks:	Student:
How do you account for these differences?	on factual informatio and/or inferences
What does this tell you about. . .?	Gives generalization

This pattern of inviting reasons to phenomena and generalizing beyond th expanded to include more and more aspect more abstract generalizations.

Chart III[6]

Applying Generalizati

This cognitive task consists of appl generalizations and facts to explain unfamil consequences from known conditions. It support their speculations with evidence a teaching strategy consists of asking the fol in this order.

Teacher Asks:	Student:
(Focusing question). Suppose that a particular event occurred, given certain conditions what would happen?	Makes inferences
What makes you think that would happen?	States explanation; identifies relationships
What would be needed for that to happen?	Identifies facts necessary to a particular inference

(Continued)

nt:	Teacher Follow Through:
	colored chalk Marks with symbols Arranges pictures or cards
tifies and lizes the mon char- tics of items oup	Seeks clarification of response when necessary
izes a label ps more than word) that opriately npasses all	Records
s different nships	Records
additional erent re- hips	Communicates grouping

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rt II [5]

d Generalizing

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t:	Teacher Follow Through:
items	Makes sure items are accessible. For example: Chalkboard Transparency Individual list Pictures Item card
explanation may be based	Accepts explanation. Seeks

(Continued)

Teacher Asks:	Student:	Teacher Follow Through:
How do you account for these differences?	on factual information and/or inferences	clarification if necessary
What does this tell you about. . .?	Gives generalization	Encourages variety of generalizations and seeks clarification where necessary

This pattern of inviting reasons to account for observed phenomena and generalizing beyond the data is repeated and expanded to include more and more aspects of the data and to reach more abstract generalizations.

Chart III [6]

Applying Generalizations

This cognitive task consists of applying previously learned generalizations and facts to explain unfamiliar phenomena or to infer consequences from known conditions. It encourages students to support their speculations with evidence and sound reasoning. The teaching strategy consists of asking the following questions. usually in this order.

Teacher Asks:	Student:	Teacher Follow Through:
(Focusing question). Suppose that a particular event occurred, given certain conditions what would happen?	Makes inferences	Encourages additional inferences. Selects inference(s) to develop
What makes you think that would happen?	States explanation; identifies relationships	Accepts explanation and seeks clarification if necessary
What would be needed for that to happen?	Identifies facts necessary to a particular inference	Decides whether these facts are sufficient and could be assumed to be present in the given situation

(Continued)

Teacher Asks:	Student:	Teacher Follow Through:
(Encouraging divergency) Can someone give a different idea about what would happen?	States new inferences that differ in some respects from preceding ones.	Encourages alternative inferences, requests explanations and necessary conditions. Seeks clarification where necessary.
If, as one of you predicted, happened, what do you think would happen after that?	Makes inferences related to the given inferences	Encourages additional inferences and selects those to pursue further.

This pattern of inviting inferences, requiring explanations, identifying necessary conditions, and encouraging divergent views is continued until the teacher decides to terminate the activity.

Teacher-Student Interaction

The strategies outlined in Charts I, II and III are based on hierarchy of questions which promote cognitive skill development. It is one thing to generate categories of questions as part of a planning exercise, it is another to add specific content and to actually teach a concept to students. The activity which follows begins with a summary of the overt student activity and the covert mental activity required by Taba's three cognitive processes.[7] The eliciting questions which prescribe the various mental operations are related to a list of animals used in a lesson developed by Edward Fenton.[8] The Taba Model is summarized so you can better follow how the model is transformed from theory into practice.

Concept Formation

Overt Activity	Covert Mental Activity
1. Enumeration and listing - - - - - - -	Differentiation
2. Grouping - - - - - - - - - - - - - -	Identifying common properties; abstracting
3. Labeling, categorizing, subsuming - - - - - - -	

Remember this is only a model of c
model will only suggest the most general
will be asked to perform two tasks in t
First, you will answer the questions mu
classroom exercise. *Second*, you will fo
model as it evolves in the actual lesson.
lesson content.

shark
turkey
rabbit
cat
grouse
rainbow trout

tuna
condor
ostrich
lion
blackbass
elephant

Q1. What do you see in the above dat
A1.

Q2. What can you note about the anim
A2.

Q3. What things in the list could be gr
A3.

Q4. On what criterion did you make y
A4.

Q5. How would you label each of the
A5.

Q6. What large groupings would encomp
A6

By this point in the lesson you have be
but for the purposes of this lesson, the pro

Student:	Teacher Follow Through:
ates new ferences that ffer in some spects from ceding ones.	Encourages alternative inferences, requests explanations and necessary conditions. Seeks clarification where necessary.
kes inferences ted to the given rences	Encourages additional inferences and selects those to pursue further.

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you can better follow how the model is
to practice.

cept Formation

	Covert Mental Activity
. . . .	Differentiation
. . . .	Identifying common properties; abstracting
3. Labeling, categorizing, subsuming	Determining the hierarchical order of items. Super- and subordination

Remember this is only a model of concept formation and as a model will only suggest the most general types of relationships. You will be asked to perform two tasks in the exercise which follows. *First*, you will answer the questions much as a student would in a classroom exercise. *Second*, you will follow the sequence of the model as it evolves in the actual lesson. The list of animals is the lesson content.

shark
turkey
rabbit
cat
grouse
rainbow trout

tuna
condor
ostrich
lion
blackbass
elephant

pike
eagle
sheep
pheasant
collie dog
barracuda

Q1. What do you see in the above data?
A1.

Q2. What can you note about the animals?
A2.

Q3. What things in the list could be grouped together?
A3.

Q4. On what criterion did you make your groupings?
A4.

Q5. How would you label each of the groupings you decided on?
A5.

Q6. What large groupings would encompass all your categories?
A6

By this point in the lesson you have been dealing with concepts, but for the purposes of this lesson, the process of concept-formation is more important than the concepts themselves. This will be clearer after the next segment of the lesson. This same lesson is treated later with student's answers provided. You may want to compare your answers with the ones they gave.

Interpretation of Data

Overt	**Covert**
1. Identifying points - - - - - - - - - -	Differentiation
2. Explaining items of identified information - - - - - - - - -	Relating points to each other Determining cause and effect relationships
3. Making inferences - - - - - - - - - -	Going beyond what is given. Finding implications, extrapolating

Q7. What observation can you make about the author's classification system used to order the same list of animals?

cat	lion	shark	turkey	ostrich	elephant
	tuna	eagle	rabbit		pheasant
	pike	sheep	grouse		

A7.

Q8. What system was used in the classification that follows:

turkey	rainbow trout
shark	collie dog
lion	black bass

A8.

Q9. What accounts for the difference in the way you classified the data initially, and the way it was classified in the last two columns?

A9.

Q10. How can the concept "frame of re
the different ways the terms were

A10.

The lesson departs from the Taba mod
is provided by the teacher rather than
Several labels would have characterized t
but the term "frame of reference" is t
scientists employ when working with pri
material.

Application of princi

Overt

1. Predicting consequences - - - - - -

2. Explaining, supporting - - - - - -

3. Verifying the prediction - - - - - -

Q11. What would happen if the top m
American Federation of Labor and
Manufacturers were switched?

A11.

Q12. How would you be able to justify

A12.

e concepts themselves. This will be clearer the lesson. This same lesson is treated later rovided. You may want to compare your gave.

pretation of Data

	Covert
- - - - - - - -	Differentiation
- - - - - - - -	Relating points to each other Determining cause and effect relationships
- - - - - - - -	Going beyond what is given. Finding implications, extrapolating

can you make about the author's sed to order the same list of animals?

hark turkey ostrich elephant
agle rabbit pheasant
heep grouse

in the classification that follows:

rainbow trout
collie dog
black bass

e difference in the way you classified the e way it was classified in the last two

Q10. How can the concept "frame of reference" be used to explain the different ways the terms were classified?

A10.

The lesson departs from the Taba model in that the concept label is provided by the teacher rather than developed by the student. Several labels would have characterized the process of classification, but the term "frame of reference" is the exact usage that social scientists employ when working with primary or secondary resource material.

Application of principles

Overt	**Covert**
1. Predicting consequences - - - - - -	Analyzing the nature of a problem or situation. Retrieving relevant knowledge.
2. Explaining, supporting - - - - - - -	Determining the casual links to prediction or hypotheses
3. Verifying the prediction - - - - - -	Using logical principles or factual knowledge to determine necessary and sufficient conditions.

Q11. What would happen if the top management positions of the American Federation of Labor and National Association of Manufacturers were switched?

A11.

Q12. How would you be able to justify your hypothesis?

A12.

Q13. What sources could you use to verify the hypothesis?
A13.

Sanders defines *application questions* as ones in which students solve a problem that requires the identification of a unique set of circumstances and the use of appropriate generalizations to solve the problem. In the context of the animal classification lesson, it would be difficult to require true application because the teacher has already established the circumstances surrounding the question by the components of the lesson that went before. If questions 11-13 were asked a week or month later and students could use the concept "frame of reference" without teacher or environmental clues as to the appropriate circumstances or the type of principles involved, then they would truly be engaged in application. Another set of circumstances requiring application of the "frame of reference" concept in the future could arise over two conflicting accounts of a battle or two different interpretations of a historical event. This points out the importance of sequencing instruction and the need to constantly revisit the concepts and principles developed through the instructional processes.

The types of questions used in the animal classification exercise and the type you set down in your reconstruction of the application section above are generic questions which provide the major focus and direction of learning through the lesson or activity being taught. To be realistic, teaching strategies require more than the sequencing of generic questions, for the majority of the questions asked in class will be unique to the students and to the situation at a particular moment in time. Parsons has constructed a "Guided Self-Analysis" system to determine the level of both question and response patterns of teachers. While the classification systems of Sanders and Taba are appropriate for generic written questions and are useful for planning instruction, the Parsons' system concentrates on all types of teacher questions and can be applied to the give and take of oral classroom discussion.

Directions: Chart IV is a summary of schedule A and B of the Parsons' system. Read over the chart and become familiar enough with the system to apply it to the animal classification transcript that follows:

Chart IV
The Guided Self-Analys

Schedule A--Teacher Questions
I. **Other:** Questions not directly rela
the ideas under consideration.
II. **Rhetorical:** Questions which teach
the pupils to answer.
III. **Information:** Questions which as
describe: A) objects, qualities,
previously observed, read or disc
B) objects, qualities, actions, a
immediate experience.
IV. **Reading:** Questions which guide
desired answers, or to appropriate
answer.
V. **Probing:** Questions which ask
concepts, principles or rules wh
among units of information; B)
principles or rules to the analysis o

Schedule B--Teacher Responses to Student
I. **Closure:** Responses which termin
level (complexity) of a pupil's think
II. **Verbal Reward:** Responses whic
statements have merit and make
lesson, but which do not elicit furt
III. **Sustaining:** Responses which main
the current level (complexity).
IV. **Extending:** Responses which raise
thinking demanded of a pupil.

Directions: Use the categories in Sch
teachers' questions below by plac
"AIII" in the blanks beside "Q1,"
question after "Q1" also implies a
pupil answer; thus you are to clas
after the first as a response to the
placing a designation such as "BII"

Q1. ___ T. What do you see in the data? (t

P. They are all names of animals.

ou use to verify the hypothesis?

ion questions as ones in which students
es the identification of a unique set of
f appropriate generalizations to solve the
the animal classification lesson, it would
e application because the teacher has
umstances surrounding the question by
on that went before. If questions 11-13
later and students could use the concept
ut teacher or environmental clues as to
es or the type of principles involved,
engaged in application. Another set of
plication of the "frame of reference"
arise over two conflicting accounts of a
erpretations of a historical event. This
f sequencing instruction and the need to
ts and principles developed through the

used in the animal classification exercise
in your reconstruction of the application
uestions which provide the major focus
rough the lesson or activity being taught.
tegies require more than the sequencing
e majority of the questions asked in class
nts and to the situation at a particular
as constructed a "Guided Self-Analysis"
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en questions and are useful for planning
tem concentrates on all types of teacher
l to the give and take of oral classroom

summary of schedule A and B of the
d over the chart and become familiar
ystem to apply it to the animal
t that follows:

Chart IV
The Guided Self-Analysis System[9]

Schedule A--Teacher Questions

I. **Other:** Questions not directly related to the development of the ideas under consideration.

II. **Rhetorical:** Questions which teachers do not intend or allow the pupils to answer.

III. **Information:** Questions which ask pupils to identify and describe: A) objects, qualities, actions, and relationships previously observed, read or discussed (information-recall); B) objects, qualities, actions, and relations observed in immediate experience.

IV. **Reading:** Questions which guide or "clue" pupils to the desired answers, or to appropriate means for determining the answer.

V. **Probing:** Questions which ask pupils to: A) generate concepts, principles or rules which explain relationships among units of information; B) apply known concepts, principles or rules to the analysis of new information.

Schedule B--Teacher Responses to Students

I. **Closure:** Responses which terminate or sharply reduce the level (complexity) of a pupil's thinking required.

II. **Verbal Reward:** Responses which indicate that a pupil's statements have merit and make useful contributions to a lesson, but which do not elicit further pupil talk.

III. **Sustaining:** Responses which maintain a pupil's thinking at the current level (complexity).

IV. **Extending:** Responses which raise the level (complexity) of thinking demanded of a pupil.

Directions: Use the categories in Schedule "A" to classify the teachers' questions below by placing a designation such as "AIII" in the blanks beside "Q1," "Q2," etc. Each teacher question after "Q1" also implies a response to the preceding pupil answer; thus you are to classify each of the questions after the first as a response to the preceding pupil answer by placing a designation such as "BII" in the "R" blanks.

Q1.___ T. What do you see in the data? (transparency)

P. They are all names of animals.

Q2.__ T. What can you note about them? R1.__

P. They are all different. The list is made up of fairly common animals that you find anywhere.

Q3.__ T. I would agree, but what things in the picture could be grouped together? R2.__

P. The dog, cat, sheep, rabbit, and turkey could be grouped together?

Q4.__ T. What criterion did you use to make your groupings? R3.__

P. I grouped the tame animals in one bunch and the wild animals in another.

Q5.__ T. How would you label each of the groupings you decided on? R4.__

P. By use, habitat, type, size, structure, and appearance.

T. Very good. R5.__

Q6.__ T. What larger grouping would encompass all these categories?

P. We learned about them in our science classes at school. I guess most of the categories would fit under zoology.

T. An excellent answer R6.__

Q7.__ T. What observation can you make about the classification system I used?

P. It looks like they are grouped according to the number of letters in the word.

T. Very good! R7.__

Q8.__ T. What was the classification system based on in this series? (transparency 3).

P. It is according to the number of words in the term.

Q9.__ T. What accounts for the difference in the way you classified the data initially and the way it was classified in the last two examples? R8. __

P. We looked at them one way
another.

T. That's not the best answer. R

Q10.__ T. How can the concept "frame
explain the differences?

P. You looked at the words th
would. We looked at the ani
reference" we gained in our sci

The following application could logicall
purposes of the handbook it will be treate

Q11.__ T. What would happen, class, i
management of the Americ
switched positions with the m
Association of Manufacturers?

P. It would really be confusin
different interests and look
different frames of reference.
represent its constituency; thu

Q12.__ T. What evidence do you have to
R11.__

P. This is true in politics. Peop
represents their point of view.
represent them, they are gener

Q13.__ T. But aren't you being a bit ideal

Q14.__ T. What idea did you use in clas
you also used to explain the
and management? R13.__

The Specimen Answer Sheet for sch
will provide you an opportunity to check
the questions and responses in the t
schedule "A" are in the form of dots a
"B" are in the form of tally marks.

ote about them? R1. ___

ifferent. The list is made up of fairly
s that you find anywhere.

but what things in the picture could be
r? R2. ___

eep, rabbit, and turkey could be grouped

id you use to make your groupings?

ame animals in one bunch and the wild
er.

label each of the groupings you decided

t, type, size, structure, and appearance.

5. ___

rouping would encompass all these

t them in our science classes at school. I
e categories would fit under zoology.

wer R6. ___

n can you make about the classification

are grouped according to the number of
rd.

. ___

ssification system based on in this series?
.

the number of words in the term.

for the difference in the way you
a initially and the way it was classified in

the last two examples? R8. ___

P. We looked at them one way and you looked at them another.

T. That's not the best answer. R9. ___

Q10.___T. How can the concept "frame of reference" be used to explain the differences?

P. You looked at the words the way an English teacher would. We looked at the animals with the "frame of reference" we gained in our science classes.

The following application could logically come later, but for the purposes of the handbook it will be treated as one continuous lesson.

Q11.___T. What would happen, class, if the people in the top management of the American Federation of Labor switched positions with the management of the National Association of Manufacturers? R10. ___

P. It would really be confusing because each group has different interests and look at the economy from different frames of reference. Neither association would represent its constituency; thus they would lose support.

Q12.___T. What evidence do you have to support your hypotheses? R11. ___

P. This is true in politics. People support the party that represents their point of view. When the politicians don't represent them, they are generally voted out of office.

Q13.___T. But aren't you being a bit idealistic? R12. ___

Q14.___T. What idea did you use in classifying animals earlier that you also used to explain the differences between labor and management? R13. ___

The Specimen Answer Sheet for schedule "A" and "B" below will provide you an opportunity to check on how well you classified the questions and responses in the transcript. The answers to schedule "A" are in the form of dots and the answers to schedule "B" are in the form of tally marks.

Specimen Answer Sheet (Schedule A)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Other														
Rhetorical													⊙	
Information	⊙	·												
Leading			·	·			⊙	·	·	·		·		
Probing					·	·					⊙			·

	Row Totals	% of Response
Other	Do not count	Do not count
Rhetorical	Do not count	Do not count
Information	2	15
Leading	7	55
Probing	4	30
	13	100%

Specimen Answer Sheet (Schedule B)

Type of Response	Tally Marks		Row Totals	% of Response
Closure	//	R9 and R12	2	20
Verbal Reward	///	R 5 - R7	X	XX
Sustaining	////	R1, R3, R11, R13	4	40
Extending	////	R2, R4, R8, R10	4	40

Info + Leading = 70 Clos. + Sus. = 60

Leading + Probing = 85 Sus. 3 Ext. = 70

The question-response ratio will determine the overall configuration of the teacher's question-response patterns. The ratio suggests that the greater percentage of questions asked were leading and probing. The greater percentage of teacher responses in schedule "B" were sustaining.

The question-response profile would indicate that a certain amount of care was taken in the animal classification exercise to ask higher-level questions. Care was taken to sequence the questions so that a factual foundation was laid thro
stage of the lesson. In the interpretatio
leading questions were used so that by th
to apply "frame of reference" they had a
work. If this background is not devel
confronted with only probing question
thinking more than clarify it. Adhere
suggested in schedule "B", on the other h
and extend thinking once it begins. I
responses made during the animal classifi
been improved. Sometimes closure respo
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way is to anticipate beforehand the type
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The Guided Self-Analysis Teacher Developme
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The components of *Teaching for Inquiry* have
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Each is packaged in a multi-media format. Both *Clas*
Communication may be implemented by individual
faculty development program. Information abou
obtained by writing to Prismatica International: P
for Education, 10900 Ventura Boulevard, Studio Ci

Individual Studen
and Classroom Q

There is a great deal of talk about indiv
in educational circles, but little is done to
problem stems from the fact that many
class hinder the learning process rather th
the sequencing of thought through inform
questions if the sequence is constantly
questions or questions unrelated to the ide

The same confusion arises when the
develop an idea fully and bounces from
another. Many times teachers click off que

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*The dots with circles represent concept shifts or the place in the lesson where the sequences of idea development are broken. Do not worry if your answers do not correspond exactly with the answer sheet. The general configuration is the important outcome.

wer Sheet (Schedule A)

5	6	7	8	9	10	11	12	13	14
								⊙	
		⊙	·	·	·		·		
·	·					⊙			·

Row Totals	% of Response
Do not count	Do not count
Do not count	Do not count
2	15
7	55
4	30
13	100%

wer Sheet (Schedule B)

Marks	Row Totals	% of Response
and R12	2	20
- R7	X	XX
R3, R11, R13	4	40
R4, R8, R10	4	40

Clos. + Sus. = 60

Sus. 3 Ext. = 70

ratio will determine the overall question-response patterns. The ratio ntage of questions asked were leading entage of teacher responses in schedule

ofile would indicate that a certain he animal classification exercise to ask as taken to sequence the questions so

t concept shifts or the place in the lesson opment are broken. Do not worry if your tly with the answer sheet. The general me.

that a factual foundation was laid through the concept-formation stage of the lesson. In the interpretation and generalization stage, leading questions were used so that by the time students were asked to apply "frame of reference" they had a background from which to work. If this background is not developed and if students are confronted with only probing questions, it will confuse student thinking more than clarify it. Adherence to response patterns suggested in schedule "B", on the other hand, is important to sustain and extend thinking once it begins. In this regard, the teacher responses made during the animal classification exercise could have been improved. Sometimes closure responses are necessary to keep the lesson in focus, but an overuse of closure tends to stifle discussion, limit thinking, and create student hostility. Several ways to avoid closure are to be thoroughly grounded in one's subject matter so the teacher's own thought has purpose and focus; another way is to anticipate beforehand the type of answers students might give by knowing something about the experiences they bring to class with them.

The Guided Self-Analysis Teacher Development Program: *Teaching for Inquiry*, is now out of print. This program has been substantially altered so as to make it easier to use, less expensive, and more effective. Extensive field testing experience has produced new program design of considerably greater vitality and enhanced impact. The components of *Teaching for Inquiry* have been completely redesigned and separated into two smaller programs: *Classroom Instruction* and *Classroom Communication*. Each of these programs focuses on an important dimension of teaching. Each is packaged in a multi-media format. Both *Classroom Instruction* and *Classroom Communication* may be implemented by individual teachers or used as the basis for a faculty development program. Information about these two programs may be obtained by writing to Prismatica International: Publishers of Multimedia Materials for Education, 10900 Ventura Boulevard, Studio City, California 91604.

Individual Student Abilities and Classroom Questions

There is a great deal of talk about individualization of instruction in educational circles, but little is done to implement it. Part of the problem stems from the fact that many of the questions asked in class hinder the learning process rather than aid it. What happens to the sequencing of thought through information, leading, and probing questions if the sequence is constantly shattered by rhetorical questions or questions unrelated to the ideas being developed?

The same confusion arises when the teacher is unprepared to develop an idea fully and bounces from one unrelated concept to another. Many times teachers click off questions so fast that students fail to comprehend them, let alone think about them and arrive at thoughtful responses. Often these rapid-fire questions act to break up the lecture format and provide the illusion that the class is "discussing" and that student needs are being met.

One way to insure a degree of individualized learning is to base the questioning strategy on facts or phenomenon the students are interested in and familiar with. By starting where the students are, the teacher can aid them in developing a more complex and differentiated cognitive structure. This will in no way deny the importance of the social science disciplines, for the disciplines are a necessary part of our culture and will remain the primary source of knowledge in the schools. The disciplines provide a structure for existing knowledge and a means of generating new knowledge, but it is still the student who must manipulate the symbols of the various disciplines into patterns of useful meaning. Although a questioning strategy can set the conditions of learning, it is the individual student who must, in the final analysis, provide the answer.

Application

In the Application Section of Chapter I you were asked to develop a set of general objectives for a unit of instruction. Before these general objectives can be re-written into informational or planning objectives you must reassess them in terms of particular subject matter content and the type of questions required to teach the objectives in the classroom. In *Application A* you will be shown how a lesson evolves from a given piece of content and how this content is reflected in the rationale and the objectives of the lesson. Following that you will be asked to develop a set of generic questions to accomplish the predetermined objectives of the lesson. In *Application B* you will be asked to review your initial unit objectives and select from them a concept you would like to explore. You will then select appropriate subject matter content and develop around it a set of generic questions which require students to develop the concept, to draw inferences and make generalizations from it, and to finally apply the concept in the lesson.

Application "A":
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The needs assessment, objectives,
components of the lesson will be dev
instructional sequence and questioning s
the reader. The questions posed before t
instructional procedures components of t
of considerations required when develop

The boxed-in material on pages 47-4
and models. Although they are not part
they are the type of considerations that
instruction and help the teacher transla
meaningful classroom behavior.

The content for the lesson is based
Pfeiffer and Jones as part of a series of
training.[10] As originally developed, the
collective decision-making will produce
ones made by individuals. Although the
entirely different way, follow the instr
interacting with the content.

Instructions: Rank the following oc
prestige which is attached to them in th
in front of the occupation which you fe
etc., all the way to "15", least prestigious

____ Author of novels
____ Newspaper columnist
____ Policeman
____ Banker
____ U.S. Supreme Court Justice
____ Lawyer
____ Undertaker
____ State governor

let alone think about them and arrive at
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In *Application A* you will be shown how
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develop a set of generic questions to
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sked to review your initial unit objectives
ncept you would like to explore. You will
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which require students to develop the
and make generalizations from it, and to
the lesson.

Application "A": The Development of a Model Lesson

The needs assessment, objectives, and teaching strategies components of the lesson will be developed for you, while the instructional sequence and questioning strategy will be supplied by the reader. The questions posed before the rationale, objectives, and instructional procedures components of the lesson illustrate the type of considerations required when developing instructional materials.

The boxed-in material on pages 47-48 illustrate these questions and models. Although they are not part of the model lesson as such, they are the type of considerations that give focus and direction to instruction and help the teacher translate instructional goals into meaningful classroom behavior.

The content for the lesson is based on an activity developed by Pfeiffer and Jones as part of a series of booklets in human relations training.[10] As originally developed, the exercise demonstrates that collective decision-making will produce more accurate decisions than ones made by individuals. Although the content will be used in an entirely different way, follow the instructions below as a way of interacting with the content.

Instructions: Rank the following occupations according to the prestige which is attached to them in the United States. Place a "1" in front of the occupation which you feel to be the most prestigious, etc., all the way to "15", least prestigious.

____ Author of novels
____ Newspaper columnist
____ Policeman
____ Banker
____ U.S. Supreme Court Justice
____ Lawyer
____ Undertaker
____ State governor
____ Sociologist
____ Scientist
____ Public school teacher
____ Dentist
____ Psychologist
____ College professor
____ Physician

The ranking which follows represents the "correct"[11] ranking as determined by experts in the field. You may want to determine how accurate your predictions were by counting the degree of discrepancy above or below the correct answer on each of the 15 items. Almost without exception a more accurate ranking will be obtained by a group which seeks consensus on every item.

1. U. S. Supreme Court Justice
2. Physician
3. Scientist
4. State governor
5. College professor
6. Lawyer
7. Dentist
8. Psychologist
9. Banker
10. Sociologist
11. Public School Teacher
12. Author of novels
13. Undertaker
14. Newspaper columnist
15. Policeman

I. Teacher Goals

A rationale for teaching must in the first instance be abstract enough to embody the aims and purposes of society and education; yet have the ability to encompass the particularism of daily classroom instruction. A rationale and educational focus (general objectives) will answer the following types of questions.[12]

- What is the nature of the individual?
- What is the nature of society?
- How are society and the individual related?
- How does curriculum answer the above questions?

A. Rationale

In general terms, students should think more critically, be more responsible for the choices they make, be more willing to recognize the humanness of others, be better able to use knowledge to insure survival, and better utilize the social studies as a way of understanding and shaping society.

B. Focus

In more specific terms the instructional unit will develop social science concepts in an instructional climate that will:

1. Explain class structure in terms of role, status, and prestige.
2. Indicate that class structure has both positive and negative functions.
3. Suggest ways of promoting more equality in America.

II. Objectives of the Lesson

Before writing informational objectives for any lesson it is important to look back at the rationale and general objectives of a lesson and ask of them and of your suggested by Fraenkel.

Questions and Ans

1. Why am I doing this?	1. A A s
2. Where am I going?	2. S r a s
3. What do I wish to accomplish?	3. S l t s c p
4. Why do I want to accomplish this?	4. I w a s
5. How can I most effectively accomplish what I wish to accomplish?	5. I u b m
6. How will I know if I have accomplished what I set out to accomplish?	6. I u s s c s

Informational Objectives (Examples)

A. Cognitive By the end of end of the le
better understanding of class
use concepts like status and r
occupations have more prestig

B. Affective Students will show empathy
groups by describing factors th
and suggesting ways that will i

ows represents the "correct"[11] ranking as
he field. You may want to determine how
ns were by counting the degree of
w the correct answer on each of the 15
ception a more accurate ranking will be
seeks consensus on every item.

stice
9. Banker
10. Sociologist
11. Public School Teacher
12. Author of novels
13. Undertaker
14. Newspaper columnist
15. Policeman

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s and purposes of society and education;
encompass the particularism of daily
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ctional climate that will:
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noting more equality in America.

tional objectives for any lesson it is
the rationale and general objectives of a

lesson and ask of them and of yourself the type of questions suggested by Fraenkel.

Questions and Answers[13]

1. Why am I doing this?	1. A class system exists in America and students should understand why.
2. Where am I going?	2. Sociology provides a rationale and systematic approach to exploring class structure.
3. What do I wish to accomplish?	3. Students should be able to look at class structure through the eyes of a sociologist and use valid concepts in explaining the phenomenon.
4. Why do I want to accomplish this?	4. I would like to develop within students the attributes of the scholarly-investigating man.
5. How can I most effectively accomplish what I wish to accomplish?	5. It will be done through the use of inquiry-techniques based on a concept teaching model.
6. How will I know if I have accomplished what I set out to accomplish?	6. It will be done through the use of a questioning sequence that requires students to apply the concepts relating to class structure.

Informational Objectives (Examples)

A. Cognitive	By the end of end of the lesson students will have a better understanding of class structure and be able to use concepts like status and role to describe why certain occupations have more prestige than others.
B. Affective	Students will show empathy for certain disadvantaged groups by describing factors that prevent social mobility and suggesting ways that will increase equality.

C. Skill Students will engage in concept formation processes such as classification, drawing inferences, making generalizations, and testing hypotheses.

III. Instructional Procedures

The instructional procedures will pull the objectives and content together into a teachable lesson. The activity analysis model which follows will explore the relationship between objectives, content, and instructional procedures.

Activity Analysis Model

Ideal Lesson		Actual Lesson
In the occupational--ranking activity students will be asked:	→ to use the cognitive skills →	of classifying, inferring, generalizing.
	→ on data →	made up of occupational rankings.
	→ to develop concepts →	of class structure, status, role
	→ which together form generalizations →	explaining social phenomenon
	→ clarifying or changing attitudes →	about the human condition
	→ learning and practicing Social studies perspectives →	from sociology

A. Teaching Strategies

The teaching strategies will be based on an inquiry mode using class discussion techniques and following a concept development format.

B. Instructional Sequence

Directions: Based on the lesson design so far, develop a series of generic questions that will require the type of thought suggested by Sanders and sequence that thought through the Taba framework outlined below.

Concept Formation

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

Inferring and Generalizing

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

Applying Generalizations

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

Instructional Proce
(A Prototype Sequ

Instructional procedures will usually tak considerations:

- o **The procedures should allow stu in their own learning.**
- o **The teaching strategies should consistent with the lesson.**
- o **Cognitive skills should be ordere ways that raise, sustain, and exten**
- o **The data upon which students should generate intellectually sou which are subject to scientific veri**
- o **The value issues raised in the le their values-clarification potential.**
- o **Whether students develop or concepts should become tools wh their world.**

Instructional Sequence (prototype lesson)

Concept Formation

The list of occupations will be writter

1. What can you note about the wor
2. In what ways could the words be
3. What names would you apply t board)
4. What larger categories could yo three or more of the group labels a

The students will probably arrive at a

engage in concept formation processes
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Actual Lesson

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ta → made up of occupational rankings.
elop concepts → of class structure, status, role
together form lizations → explaining social phenomenon
ying or changing des → about the human condition
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ill be based on an inquiry mode using
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lesson design so far, develop a series of
ill require the type of thought suggested
ence that thought through the Taba
ow.

____
____
____
____

Inferring and Generalizing

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

Applying Generalizations

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

Instructional Procedures
(A Prototype Sequence)

Instructional procedures will usually take account of the following considerations:

- **The procedures should allow students to take an active part in their own learning.**
- **The teaching strategies should provide variety and be consistent with the lesson.**
- **Cognitive skills should be ordered throughout the lesson in ways that raise, sustain, and extend student thought.**
- **The data upon which students use their cognitive skills should generate intellectually sound concepts and principles which are subject to scientific verification.**
- **The value issues raised in the lesson should be utilized for their values-clarification potential.**
- **Whether students develop or discover concepts, these concepts should become tools which they use to understand their world.**

Instructional Sequence (prototype lesson)

Concept Formation

The list of occupations will be written on the board.

1. What can you note about the words on the board?
2. In what ways could the words be grouped together?
3. What names would you apply to your groupings? (list on board)
4. What larger categories could you name that could include three or more of the group labels already on the board?

The students will probably arrive at a variety of ways of grouping the items from the board. All groupings are accepted as long as the reasoning is sound and the labels can be explained. The fourth question will require grouping into more abstract and inclusive categories, and whether the correct name is applied or not, the categories would, in all likelihood, be made up of attributes associated with roles, status, prestige, and in more inclusive terms, with the concept of class structure.

Inferring and Generalizing

1. Why do differences exist between the various occupations?
2. Would you hypothesize that there is a class structure in America?
3. How would you test that hypotheses?
4. What would be the characteristics of people filling the lowest prestige occupations as opposed to people filling the highest prestige occupations?

In answering these questions students will begin to deal with problems like the unequal distribution of wealth, poverty, and discrimination. The answers students give should be recorded on the board, for they will, in all likelihood, reveal the values particular to their own social classes.

The question about the existence of a class structure could be answered by ranking the original 15 occupations. This activity will require a scientific posture on the part of students, particularly if their rankings could be compared with official rankings done by experts. This scientific posture should be continued through the discussion of question No. 4. A few of the spin-off questions might include: What skill does it take to become a Supreme Court Justice? How much chance does a poor person have to develop the skill, to earn the money, and to share in the affluence of this country? What socially useful function does the class structure serve? What are its most glaring inequalities?

Applying Generalizations

1. If you had the power and the resources to eliminate injustice in America, what five things would you do?
2. What problems would you anticipate?
3. How could the problems be overcome?
4. What problems may not be solved in your lifetimes?

These last four questions would be far ranging, and though they do not mention the concepts of the lesson, they most certainly will be used throughout the course of discussion. Whenever necessary students would be asked to define the terms they use, identify consequences, support claims with dat make sound generalizations based on the

Application "B":
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a M

This is a follow-through on the worl concluded that chapter by developing a objectives. By now you should have eno these general objectives into instructiona which follows as a guide to your planni should follow the concept teaching ap other instructional procedures that cou explored in later chapters.

I. **Teacher Goals and Classroom Que**
    A. **Rationale**
    B. **Focus**
II. **Objectives of the Unit (Informatio**
    A. **Cognitive:**
    B. **Affective:**
    C. **Skill:**
III. **Instructional Procedures:**
    A. **Teaching Strategies**
    B. **Instructional Sequence**
        1. **Concept Formation**
        2. **Inferring and Generalizing**
        3. **Applying Generalizations.**

Notes

1 "The Growth of Cities" [Unit II], (Washington, D.C., 1967) pp. 29-33. Rep Association of American Geographers, W 1967 by the Association of American Geo

2 Norris M. Sanders, *Classroom Que*

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consequences, support claims with data or logical arguments and make sound generalizations based on their discussion.

Application "B": The Development of a Model Lesson

This is a follow-through on the work started in Chapter I. You concluded that chapter by developing a set of general educational objectives. By now you should have enough background to develop these general objectives into instructional sequences. Use the outline which follows as a guide to your planning. The lesson you develop should follow the concept teaching approach although there are other instructional procedures that could be used. These will be explored in later chapters.

I. **Teacher Goals and Classroom Questions**
    A. **Rationale**
    B. **Focus**
II. **Objectives of the Unit (Informational Objectives)**
    A. **Cognitive:**
    B. **Affective:**
    C. **Skill:**
III. **Instructional Procedures:**
    A. **Teaching Strategies**
    B. **Instructional Sequence**
        1. **Concept Formation**
        2. **Inferring and Generalizing**
        3. **Applying Generalizations.**

Notes

1 "The Growth of Cities" [Unit II], *Geography in an Urban Age* (Washington, D.C., 1967) pp. 29-33. Reprinted by permission of the Association of American Geographers, Washington, D.C. Copyright c 1967 by the Association of American Geographers.

2 Norris M. Sanders, *Classroom Questions, What Kinds?* (New

York: Harper & Row, 1966), p. 3. Reprinted by permission of Harper & Row, Publishers, Inc.

3 Jack R. Fraenkel, "Ask the Right Questions?" *The Clearinghouse*, XL (March, 1966), 397-400.

4 Mary C. Durkin et al., *Communities Around Us, Grade Two* (Teacher's Edition), the Taba Social Studies Curriculum (Palo Alto: Addison-Wesley Publishing Co., 1969), p. XXII. Reprinted by permission of the publisher, Addison-Wesley, copyright 1969.

5 *Ibid.*, p. XXIII.

6 *Ibid.*, p. XXV.

7 Hilda Taba and James Hills, *Teacher Handbook for Contra Costs Social Studies, Grades 1-6* (Hayward, California: Rapid Printers and Lithographers, 1965), pp. 85, 94, 102. Reprinted by permission of the publisher.

8 *Teacher's Guide for Three Experimental Units*, ed. Edwin Fenton (New York: Holt, Rinehart and Winston, 1966), pp. 25-26, 51-55. Reprinted by permission of the publisher. Copyright © by Holt, Rinehart and Winston, Inc., 1966.

9 Theodore W. Parsons, *The Guided Self-Analysis Teacher Development Program: Teaching for Inquiry* (Berkeley, 1967), pp. 11-12. Reprinted by permission of the author.

10 "Seeking Consensus: A Group Ranking Task," *Handbook of Structured Experiences for Human Relations Training*, ed. William J. Pfeiffer and John E. Jones II (Iowa City, Iowa, 1970). Reprinted by permission of the publisher, University Associates, Iowa City, Iowa.

11 Based on R. W. Hodge et al., "Occupational Prestige in the United States: 1925-1963," *Class, Status and Power: A Reader in Social Stratification* (New York, 1966), pp. 322-334.

12 Irving Morrissett, "On Rationale: Why Social Science?" in *Social Sciences in the Schools: A Search for Rationale*, ed. Irving Morrissett (New York, 1971), p. 4.

13 Fraenkel, p. 397.

6), p. 3. Reprinted by permission of
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"Ask the Right Questions?" *The*
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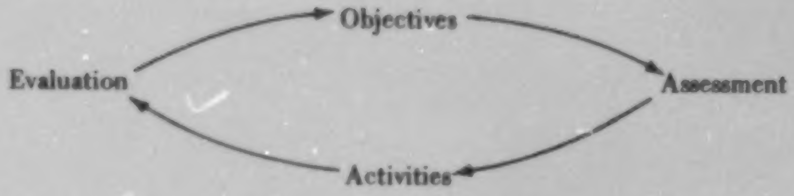
Rationale: Why Social Science?" in
ls: A Search for Rationale, ed. Irving
p. 4.

13 Fraenkel, p. 397.

Chapter III
Valuing



So far the focus in *Perspectives* has been on the two questions, "What should be taught?" and "What constitutes thinking?" In answer to the first question the discussion centered on the types of objectives that promoted the scholarly, the public, and the personal man. Although the curriculum emphasis can center on one perspective over the others, all three positions deserve attention when teachers establish educational priorities. The focus of Chapter II was on the second question which shifted attention away from teacher planning to concentrate on the learning process itself. Here, the teacher, student, and curriculum came together in a dynamic interaction. Analysis of this interaction demonstrated the need for sound planning on the teacher's part, for the utility of carefully sequenced classroom questions, and for teacher response patterns and the potential they have for sustaining or extending student thought.

The present chapter will continue to focus on the learning process, but it will shift attention from the cognitive to the affective domain. The rationale for treating values was established in Chapter I along with hierarchies of valuing outlined by Gronlund. The purpose of this chapter is to explore three distinct approaches to values clarification and to treat each approach in terms of its educational model, its potential strengths, and its possible dangers. These models are presented in answer to the question, "What should be valued?"

Experience

According to Raths[1] valuing is a process that includes prizing, choosing, and acting on one's beliefs and values. The exercise which follows was adapted from Rath's seven step values grid.

Task 1: A Question of Validity

Directions: Task No. 1 is presented in two stages. In Stage I you are asked to check the response along the left side of the page that shows your position on the issue. When you finish checking responses to all the issues, come back to the beginning and complete Stage II. You may pass on any statement you choose not to answer. Directions for Stage II appear on page 3 .

Stage I **Stage II**

1. If I found two 6th grade students in the locker room engaged in homosexual activity, I would:	1	2	3	4	5	6	7
___turn them over to the school counselor.							
___pretend I hadn't seen it.							
___talk to the boys about it.							

2. As a classroom teacher I most enjoy:	1	2	3	4	5	6	7
___discussing controversial issues.							
___preparing for classes.							
___being regarded by my students as an authority in my field.							

3. I refuse to discuss with my class:	1	2	3	4	5	6	7
___the facts of life.							
___the advantages of socialism.							
___my religious beliefs.							

4. Our school would be better if:	1	2	3	4	5	6	7
___the teacher-pupil ratio were reduced.							
___a stricter student conduct code were enforced.							
___competitive interschool sports were eliminated.							

5. A bright, but obese student in my class is repeatedly ostracized by his classmates. The best approach would be:	1	2	3	4	5	6	7
___to ignore the situation. Let the kids handle it.							
___to reprove the class for its attitude and							

(Continued)

Stage I

force them to include the stud
class activities.
___to discuss the problem privately
the offending student.

6. The least important subject in any
curriculum is:
___world history
___art
___physical education

7. Open defiance of a teacher's r
usually calls for:
___a private conference with the st
___sending the student to the princip
___extra homework for the student.

8. A boy in my class, one with few fr
confides that he wants to be a c
violinist. I would:
___tell him to take up a sport instead
___act interested but do nothing fu
___help him to arrange for private
lessons.

9. It is important for a teacher to be:
___consistent.
___loving.
___knowledgeable.

10. The most important factor in my cho
teaching position would be:
___the salary schedule and possibil
advancement.
___the socio-economic make-up o
community.
___the physical plant (including ava
teaching materials and teacher
ratio).

presented in two stages. In Stage I
k the response along the left side of the
position on the issue. When you finish
o all the issues, come back to the
te Stage II. You may pass on any
not to answer. Directions for Stage II

Stage II

ade students in the 1 2 3 4 5 6 7
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I most enjoy: 1 2 3 4 5 6 7
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for its attitude and

tinued)

Stage I **Stage II**

force them to include the student in class activities.
___to discuss the problem privately with the offending student.

6. The least important subject in any school curriculum is: 1 2 3 4 5 6 7
___world history
___art
___physical education

7. Open defiance of a teacher's request usually calls for: 1 2 3 4 5 6 7
___a private conference with the student.
___sending the student to the principal.
___extra homework for the student.

8. A boy in my class, one with few friends, confides that he wants to be a concert violinist. I would: 1 2 3 4 5 6 7
___tell him to take up a sport instead.
___act interested but do nothing further.
___help him to arrange for private music lessons.

9. It is important for a teacher to be: 1 2 3 4 5 6 7
___consistent.
___loving.
___knowledgeable.

10. The most important factor in my choice of teaching position would be: 1 2 3 4 5 6 7
___the salary schedule and possibility of advancement.
___the socio-economic make-up of the community.
___the physical plant (including available teaching materials and teacher-pupil ratio).

Stage I

11. My ideal student type is:
___the bookworm--quiet, but studious and conscientious.
___the BMOC-a born leader, always active in class activities although his grades are only average.
___the wit-keeps the class awake and often contributes creative, if off-beat, ideas.

Stage II

1	2	3	4	5	6	7

12. The star forward of the girls' basketball team tells me in confidence that she thinks she is pregnant. It is one week before the state tournament. I would:
___tell the coach.
___tell her parents.
___urge her to see a doctor, but say nothing myself.

1	2	3	4	5	6	7

13. A 13-year old student nearly dies from a drug overdose, yet his classmates don't seem sobered by the accident. I would:
___do nothing unless a student mentions the incident.
___use any excuse to initiate a class discussion on drugs.
___involve the student in planning a school-wide drug symposium.

1	2	3	4	5	6	7

14. I would most favor our school:
___ abolishing grades.
___ distributing birth control information.
___ improving vocational course offerings.

1	2	3	4	5	6	7

15. If I had an extra free period each day, I would usually:
___use it to make class preparations.
___spend it talking with my colleagues.
___arrange to hold conferences with individual students on a regular basis.

1	2	3	4	5	6	7

Stage II to Task I

Consider again the position you ch
item above asking yourself the followin
they relate to that position. For
affirmatively, place a check in the corre
all 15 items.

In Stage II the numbered columns to
correspond to the following seven questio

1. Are you *proud* of (do you prize or
position?

2. Have you *publicly affirmed* your p

3. Have you chosen your p
alternatives?

4. Have you chosen your position af
consideration of the pros an
consequences?

5. Have you chosen your position *fre*

6. Have you *acted* on or done anythi
beliefs?

7. Have you acted with *repetition*
consistency on this issue?[2]

The values grid in Task no. 1 illustr
their own unique value systems. Despite
and the degree of commitment, howeve
each of the situations from an educ
Although there would be different resp
would reflect a teacher's conscientiou
learning in each of the situations mention

- o How might a policeman address
grid?
- o How might a fundamentalist min
the same values grid?
- o In most cases why would your ov
either the policeman's or the minis

Stage II

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born leader, always s activities although his ly average.							
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of the girls' basketball nfidence that she thinks is one week before the would:	1	2	3	4	5	6	7
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ent nearly dies from a t his classmates don't accident. I would:	1	2	3	4	5	6	7
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udent in planning a symposium.							
our school:	1	2	3	4	5	6	7
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h control information.							
ional course offerings.							
free period each day, I	1	2	3	4	5	6	7
ass preparations.							
with my colleagues.							
ld conferences with nts on a regular basis.							

Stage II to Task I

Consider again the position you chose for the first numbered item above asking yourself the following seven questions below as they relate to that position. For every question answered affirmatively, place a check in the corresponding box. Continue for all 15 items.

In Stage II the numbered columns to the right of each item above correspond to the following seven questions:

1. Are you *proud* of (do you prize or cherish) your position?
2. Have you *publicly affirmed* your position?
3. Have you chosen your position from *alternatives?*
4. Have you chosen your position after *thoughtful consideration* of the pros and cons and consequences?
5. Have you chosen your position *freely?*
6. Have you *acted* on or done anything about your beliefs?
7. Have you acted with *repetition*, pattern or consistency on this issue?[2]

The values grid in Task no. 1 illustrates that teachers do have their own unique value systems. Despite the differences of opinion and the degree of commitment, however, a teacher would address each of the situations from an educator's frame of reference. Although there would be different responses, most of the answers would reflect a teacher's conscientious concern for improving learning in each of the situations mentioned.

- How might a policeman address issues on the same values grid?
- How might a fundamentalist minister address the issues on the same values grid?
- In most cases why would your own responses be better than either the policeman's or the minister's?

A similar values grid could be developed for youth and they would illustrate a similar spread of opinion characterized by adults. The difference would come from their lack of education and experience and therefore the validity behind the reasons they would give for their choices. An educated person who has attended college should give much more scientific explanations for the opinions he holds. A person not exposed to advanced studies will respond with "conventional wisdom" gained from the media or from folk culture. These are the value orientations that must be challenged in the market place of ideas.

Task 2: A Question of Policy

Directions: Complete the values sheet and answer the questions which follow it.

Values Sheet

"Focus on U.S. - The Midwest"[3]

It finally happened. The Cuyahoga River caught on fire last month. Just as Cleveland Mayor Carl B. Stokes and a host of other antipollutionists warned it would.

The lower reaches of the Cuyahoga, a meandering stream which flows into Lake Erie, are saturated with pollutants-mainly unreclaimed oils and other gooey wastes from the big steel mills and other industries lining the river's banks.

Spot fires from oil slicks and other flammable junk floating in the river are usually put out quickly by patrolling fireboats.

But this time the situation got out of hand, owing to an enormous accumulation of oil that apparently was dumped into the river in the vicinity of Jones and Laughlin Steel Corporation.

The slick ignited. Shooting flames upward to 200 feet, it floated downstream under two railroad trestles. The wooden trestles caught fire. Both tracks, curled by the heat, had to be closed. Fire officials estimated the damage at $50,000.

Both state and local *laws* prohibit dumping of industrial wastes into the Coyahoga. But the laws are rarely *if ever* invoked. And the state grants permits to industries to jettison their effluence into the stream. . . .

• • • •

1) What issue is the article depicting?

2) Assume you are chairman of a
assigned to look into the proble
column the benefits that might ac
river. In the right hand column
problems that cleaning up the river

Benefits	

3) What public policy would you reco
to take?

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• • • •

1) What issue is the article depicting?

2) Assume you are chairman of a fact-finding committee assigned to look into the problem. List in the left hand column the benefits that might accrue from cleaning up the river. In the right hand column list the disadvantages or problems that cleaning up the river might cause.

Benefits	**Costs**

3) What public policy would you recommend for Mayor Stokes to take?

The first reaction to an editorial of this type might be one of moral indignation. The solution described in the article can be condemned on both aesthetic and ethical grounds. In spite of this initial reaction, however, the technique of force-field analysis requires an examination of costs as well as benefits. The analysis may still lead to positive public action, but after thoughtful deliberation the action will generally be more rational and better planned. If pollution is as "bad" as people say, how would you answer the following questions?

- o Why is it that social costs are not part of the businessman's cost and revenue accounting?

- o Why is it that anti-pollution laws are not enforced?

- o Why is it that automobile production reaches new highs year after year while mass transit is largely ignored?

- o Why is "progress" the nation's major preoccupation?

Pollution is only one of many issues where an obvious discrepancy exists between what people say and the way they actually behave. People are against pollution in their public statements, but seldom carry that same resolve into their public behavior. A person imbued with social values will be aware of social problems and be willing to carry the burdens necessary to act on these values.

Task 3: A Question of Choice

Directions: Complete the values sheet and answer the questions which follow it.

Values Sheet

"Ecology and Its Implications"[4]

In Malayasia recently, in an effort to kill off mosquitoes, American technologists sprayed woods and swamplands with DDT. Result? Cockroaches, which ate poisoned mosquitos, were so slowed in their reactions that they could be eaten by a variety of tree-climbing lizard, which, sickened in turn, could be eaten by cats, which promptly died of insecticide poisoning. The cats having died, the rat population began to increase; as rats multiplied, so did fleas: hence the rapid spread of bubonic plague in Malaysia. But this is not all. The tree-climbing lizards, having died, could no longer eat an insect which consumed the straw thatching of the natives' huts. So as

Malaysians died of plague, their roofs
heads.

1) Write your reactions to the ab
don't even write full sentences.

2) What implications does this hav

3) Can you list some things you
have broken the delicate balance

4) What changes in your life h
increased awareness of ecologica

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Values Sheet
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of bubonic plague in Malaysia. But this is not
izards, having died, could no longer eat an
he straw thatching of the natives' huts. So as Malaysians died of plague, their roofs literally caved in above their heads.

1) Write your reactions to the above paragraph. Do it quickly; don't even write full sentences.

2) What implications does this have for your own life?

3) Can you list some things you have done in the past which have broken the delicate balance of nature?

4) What changes in your life have you made because of increased awareness of ecological factors?

Although the focus in Task No. 3 is similar to that of Task No. 2, the way the issue was handled in the tasks differed considerably. In Task No. 2, force field analysis was used to determine conflicting approaches to the problem of pollution. In Task No. 3 the questions required a very different type of response which was more personal than public, requiring the reader to come to terms with his own view of the world. In its workshop literature the Adirondack Mountain group suggests other questions that can be asked in values clarification.

1) Is it really a free choice? Or a hangup?
2) What alternatives have you considered for your choice?
3) How long have you thought about it? How carefully?
4) Have you felt the consequences?
5) What do you prize and cherish? How?
6) What would you want to publicly affirm? How?
7) What have you acted upon which you say you believe.
8) Is it moving toward a pattern? Do you repeat it?[5]

Reflections on the Values Clarification Experience

In a reality-based curriculum, teachers and students alike will be dealing with a wide range of critical issues and problems, the solutions of which are inexorably tied to man's very survival. The solutions to these problems call for critical thought, but at the same time, they require investigation into values and into the valuing processes of man himself. Whether educators like it or not, learning and valuing are an integral part of the school curriculum, and, particularly in the social studies teachers must be aware of their central position in the valuing process. For the purposes of this chapter the valuing process will be divided into those leading to *intellectual values*, those leading to *democratic* values, and those leading to *personal values*.[6] The classification will parallel the scholarly man, the public man, and the personal man focus introduced in Chapter I.

Intellectual Values. The difficulty of separating the cognitive and affective and skill domains of behavior is most evident when dealing with intellectual values. Subsumed under this category are those values which grow out of man's scientific exploration of his world. A student imbued with scientific values would see the behavior of himself and others as the result of natural causes; he would tend to

attribute that causation to multiple rather
he would prize objectivity and precision in
data. It can be assumed that students,
discipline, will absorb attitudes and values
in the field. A teacher imbued with scienti
with the latest knowledge in his field of
truth and challenge error whenever possible
sense of healthy skepticism about him
discipline, and the entire human condition

Democratic Values Subsumed under
values which promote empathy and toleran
Students imbued with these values would h
problems and demonstrate a willingness
toward their solution. A teacher imbued
promote inquiry into topics such as the
and religion. He would work in class
equality, and brotherhood of man, and
influence public policy through open deba

Personal Values. Subsumed under this
which reflect the innermost thoughts and
They are values which are chosen freely, e
in accordance with the dictates of one's con
with these values will have a positive self
and positive in their behavior and will
outlook on life. Teachers imbued with th
recognize the potential impact of their
students. This influence will not be exerte
which is the antithesis of the democratic
analysis of the type of values students
lifetime.

Analysis

In the material which follows you will
approaches to values clarification described
of the chapter. Each segment will consist of

- A description of the approach
- A theoretical model explaining the a
- The problems of implementation

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attribute that causation to multiple rather than singular factors; and he would prize objectivity and precision in gathering and interpreting data. It can be assumed that students, as practictioners of a discipline, will absorb attitudes and values similar to those of scholars in the field. A teacher imbued with scientific values would keep up with the latest knowledge in his field of endeavor; he would seek truth and challenge error whenever possible; and he would promote a sense of healthy skepticism about himself, his subject matter discipline, and the entire human condition.

Democratic Values Subsumed under this category are those values which promote empathy and tolerance for the views of others. Students imbued with these values would have an awareness of social problems and demonstrate a willingness to take positive action toward their solution. A teacher imbued with these values would promote inquiry into topics such as the freedom of speech, press, and religion. He would work in class to promote the dignity, equality, and brotherhood of man, and consciously attempt to influence public policy through open debate and rational discourse.

Personal Values. Subsumed under this category are those values which reflect the innermost thoughts and feelings of individuals. They are values which are chosen freely, examined, and acted upon in accordance with the dictates of one's conscience. Students imbued with these values will have a positive self image, be more purposeful and positive in their behavior and will have a more enthusiastic outlook on life. Teachers imbued with these personal values will recognize the potential impact of their own value systems on students. This influence will not be exerted through indoctrination, which is the antithesis of the democratic process, but through an analysis of the type of values students must grapple with over a lifetime.

Analysis

In the material which follows you will be introduced to the three approaches to values clarification described in the experience section of the chapter. Each segment will consist of the following:

- A description of the approach
- A theoretical model explaining the approach
- The problems of implementation

and will treat in turn, intellectual values, democratic values and personal values.

Intellectual Values: The Discrepant Data Approach

A Description of Discrepant Data

During the course of a school day a teacher will find many opportunities to correct misinformation and provide students with new insights into his world. Most of the time this process involves little more than listening to students and responding to them with the sensitivity and understanding usually associated with effective teaching. There are times, however, that misinformation and error can be compounded over time into dangerous stereotypes which are grossly inconsistent with the cognitive and affective objectives of the teacher. If these stereotypes are deeply ingrained into the value patterns of students there is seemingly little the teacher can do to correct the situation. The first response might be to moralize, but this posture typically meets with very limited success. If the stereotype can be corrected at its source, the discrepant data approach can be very effective.

The Discrepant Data Approach to values is not limited to any particular curriculum, although it is used quite successfully in the High School Geography Project. The "New Orleans" activity in the project's *Urban Unit* exemplifies the power of the discrepant data approach about as well as any activity in the course. The stereotype treated in the activity is that blacks live in slum conditions; they have little education; and their earning potential is limited. This stereotype is reinforced by a variety of different maps depicting a slum neighborhood in New Orleans which has all the earmarks of a ghetto area. A similar analysis of an adjoining neighborhood shows the attributes usually associated with a middle class environment. The students are then asked to make hypotheses about the people of both neighborhoods as to their racial composition, mean family income, years of school completed, and the value of their housing. Their stereotypes are reinforced by census tract data that "shows" that the first neighborhood is indeed a slum area, and most of the student hypotheses prove to be correct.

The same reinforcement is given in
the second neighborhood to be middle
The discrepant data part of the activit
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neighborhood three is upper class, made
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The Discrepant

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Problems of Imp

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The Discrepant Data Approach to values is not limited to any particular curriculum, although it is used quite successfully in the High School Geography Project. The "New Orleans" activity in the project's *Urban Unit* exemplifies the power of the discrepant data approach about as well as any activity in the course. The stereotype treated in the activity is that blacks live in slum conditions; they have little education; and their earning potential is limited. This stereotype is reinforced by a variety of different maps depicting a slum neighborhood in New Orleans which has all the earmarks of a ghetto area. A similar analysis of an adjoining neighborhood shows the attributes usually associated with a middle class environment. The students are then asked to make hypotheses about the people of both neighborhoods as to their racial composition, mean family income, years of school completed, and the value of their housing. Their stereotypes are reinforced by census tract data that "shows" that the first neighborhood is indeed a slum area, and most of the student hypotheses prove to be correct.

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The same reinforcement is given in census tract data that show the second neighborhood to be middle class and exclusively white. The discrepant data part of the activity comes in the analysis of neighborhood three. The three neighborhoods are contiguous, and the third has beautiful parks, spacious houses, new schools, and winding streets. Almost to a person, the students hypothesize that neighborhood three is upper class, made up of people who are white, wealthy, educated and highly successful. The data does not support the student hypotheses in the important category of race for it proves that 90% of the people in the neighborhood are black.

After the shock of the discrepant data wears off, the students are asked to form a new generalization about the nature of minority groups and the socio-economic environment in which they live. The new generalizations that emerge are, as a result, more consistent with the way things actually are. The initial stereotype isn't completely destroyed, but it is seriously modified, and the exercise provides a penetrating insight into the nature of prejudice.

The Discrepant Data Model

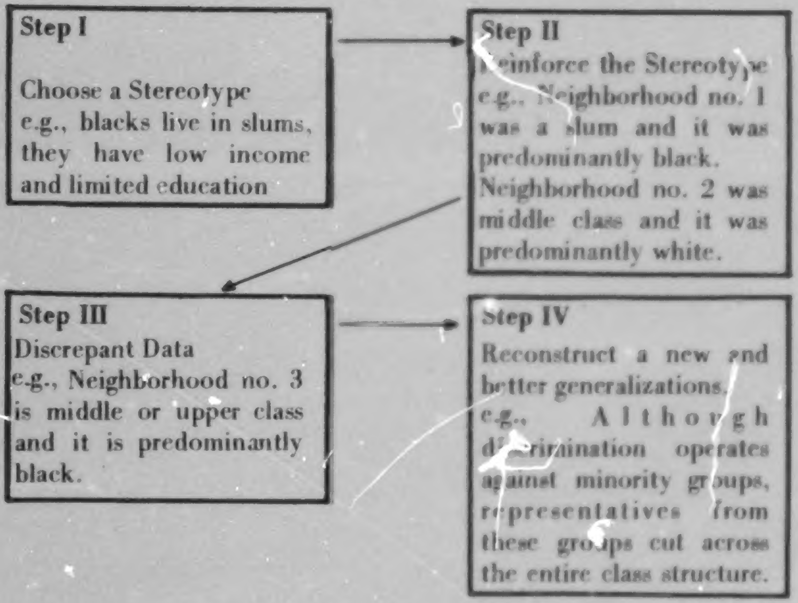
The major cognitive objective of the "New Orleans" activity was to illustrate the structure and function of urban centers. The principal skill objective was to provide students the opportunity to use a variety of media as tools for geographic discovery. The affective objective of the activity was to change students' attitudes toward race relations through the students' own manipulation of geographic data. The values clarification model underlying the "New Orleans" activity has been outlined by the developers in the High School Geography Project's teacher education material. Figure 1 is an application of the model developed by Ronald J. B. Carswell and Robert M. Cason as a part of the Project. (See page 58 .)

Problems of Implementation

The danger in the discrepant data approach is that its overuse will seriously endanger the teacher's credibility with the students. An even greater danger is in the way the discrepant data activities can be misused. The teacher must let the students interact with the data and take as non-directive a role as possible, particularly during the reinforcement part of the lesson. Care must be taken in the way the lesson is developed, for the data should do the "talking" rather than

(Continued following figure 1)

Figure 1[7]



Step I

Choose a Stereotype e.g., blacks live in slums, they have low income and limited education

Step II

Reinforce the Stereotype e.g., Neighborhood no. 1 was a slum and it was predominantly black. Neighborhood no. 2 was middle class and it was predominantly white.

Step III

Discrepant Data e.g., Neighborhood no. 3 is middle or upper class and it is predominantly black.

Step IV

Reconstruct a new and better generalizations. e.g., Although discrimination operates against minority groups, representatives from these groups cut across the entire class structure.

the teacher. The teacher is vulnerable to attack during the reinforcement part of the lesson because Step I of the model is supporting a stereotype the teacher knows to be wrong. If the approach backfires, the student may leave the class with a stronger set of biases than when he entered it. The discrepant data procedure is designed to clarify value positions. If it confuses rather than clarifies issues, it should not be used.

The discrepant data approach is only one of several approaches used in this chapter and there is little evidence to prove that any one approach to value clarification is best. Judgments can be made, however, on the appropriate posture that a teacher takes with regard to value issues. There is a tendency for teachers, in a desire to be completely honest with students, to present their own position on each of the value issues treated in class. The danger in this approach is pointed out by Macdonald and Zaret through their research findings which indicate that role-expectancy in teacher behavior created reproductive student responses.[8] In other words, students are motivated in many subtle ways to perform in a manner that will please the teacher.

Another dangerous posture is for the teacher to assume the role

of the "devil's advocate." A consistent use
predispose the students toward reproduc
confuse students as to the point being ma
can take positions on either side of an
aware of the anxiety and confusion t
classroom. The posture set forth by the
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This does not mean that the teacher avoid
mean that in dealing with value issues in t
does all in his power to establish a clima
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choice will be elaborated more fully in
inquiry.

Democratic Values
Discussing
Controversial Iss

A Description o
Public Issues Ap

The discrepant data model allow
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works because the manipulation of data fo
discrepancy within his own thinking, and,
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developed thus reducing or eliminating the

Controversial issues in social studies c
type of student motivation and provide
discrepant data for values clarification. The
used in class stems from a misconception
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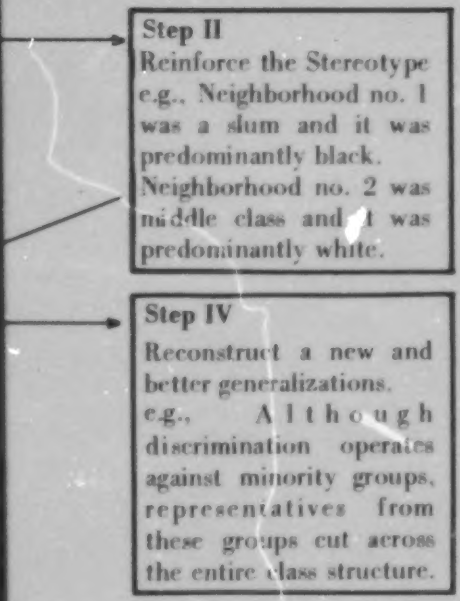
avoided. This is not surprising considering
the "quiet classroom" and the fact that
analysis used by social scientists are based
conflict.

Figure 1[7]


Step II
Reinforce the Stereotype e.g., Neighborhood no. 1 was a slum and it was predominantly black. Neighborhood no. 2 was middle class and it was predominantly white.
Step IV
Reconstruct a new and better generalizations. e.g., Although discrimination operates against minority groups, representatives from these groups cut across the entire class structure.

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responses.[8] In other words, students are
ays to perform in a manner that will

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of the "devil's advocate." A consistent use of this technique may not predispose the students toward reproductive behavior, but it may confuse students as to the point being made in the lesson. Teachers can take positions on either side of an issue, but they should be aware of the anxiety and confusion that it may cause in the classroom. The posture set forth by the author is that the teacher should maintain a neutral position on value issues whenever possible. This does not mean that the teacher avoids controversy, but it does mean that in dealing with value issues in the classroom, the teacher does all in his power to establish a climate which protects student choice in the valuing process. The factors which promote a climate of choice will be elaborated more fully in Chapter IV, dealing with inquiry.

Democratic Values: Discussing Controversial Issues

A Description of the Public Issues Approach

The discrepant data model allows the student to see inconsistencies in his own thought processes and to change as a result of the active reorganization of his field of experience. The model works because the manipulation of data forces the student to see the discrepancy within his own thinking, and, at the same time, provides a means through which more appropriate generalizations can be developed thus reducing or eliminating the discrepancy.

Controversial issues in social studies classes can offer the same type of student motivation and provide the same opportunity as discrepant data for values clarification. The reason controversy is not used in class stems from a misconception many teachers have about conflict and the belief that conflict is inherently bad and should be avoided. This is not surprising considering the premium placed on the "quiet classroom" and the fact that many of the models of analysis used by social scientists are based on consensus rather than conflict.

In economics, for example, equilibrium comes at the point where supply equals demand, where the market is cleared, and when wants of the consumer are satisfied. Although some type of consensus comes at the end of the economic process, conflict remains the very essence of economic life. The basic economic problem is one of conflict between man's limited resources and his unlimited wants, and it is conflict resolution that makes the system work.

In a similar manner, conflict is necessary in education, for without it there would be little change in student behavior. Consensus is equally necessary, for without it, there would be no way to consolidate change and little basis for sustaining growth in the future. If managed effectively, conflict can become a powerful tool in the hands of the teacher, particularly when the teacher's area is the social studies.

A Model for the Analysis of Controversial Issues

Considerable research has been done in the area of values education by Hunt and Metcalf[9] and Oliver and Shaver.[10] Meredith Gall of the Far West Laboratory used these sources to develop a framework which would aid in the exploration of controversial issues. Part of his rationale was a belief that students should be able to cope in a rational manner with the issues that grow out of their pluralistic society. Students need to clarify points of controversy, seek and test evidence, advance arguments, and defend positions in terms of social reality.

To accomplish these goals the teacher must initiate discussions which call for the frank and open exchanges of informed opinion and which lead to informed decision making on the part of their students. The model in Table I describes a sequential treatment of a controversial topic. Each lesson in the model represents a different set of questions and a different type of issue.

- o Lesson 1 treats the *prescriptive* issue of the controversy through value types of questions dealing with "What ought to happen?" A discussion based on value claims will promote student involvement, generate data and identify the issue under discussion.
- o Lesson 2 treats the *descriptive* issue of the controversy through questions dealing with "What happened?" and "What are the facts of this case?" A discussion based on the

objective aspects of the controv
posture toward the issue.

- o Lesson 3 treats the *analytic* issu
explanatory type of questions
event occur?" and "What is the
discussion based on analysis
conflict and center on the disput
political, social and ideological d
- o Lesson 4 treats the *total contro*
The questions are reflective d
learn?" and "How did you cha
predictive, dealing with "What
"Given a different situation,
respond?"

TABLE I

DISCUSSING CONTROVERS

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and Development. All rights rese

Course objective: Develop skills for di
effectively.

Moderators	
LESSON 1	
OBJECTIVE: Have an open discussion say what they think.	
1. Support every person's right to his own opinion.	1. T a
2. Use supportive silence to promote group interaction.	2. D 3. A th
3. Distribute participation by calling on silent group members.	4. D a

(Continued)

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goals the teacher must initiate discussions nd open exchanges of informed opinion and decision making on the part of their able I describes a sequential treatment of a lesson in the model represents a different ferent type of issue.

the *prescriptive* issue of the controversy s of questions dealing with "What ought to ssion based on value claims will promote nt, generate data and identify the issue

the *descriptive* issue of the controversy s dealing with "What happened?" and ts of this case?" A discussion based on the objective aspects of the controversy will establish a scientific posture toward the issue.

- Lesson 3 treats the *analytic* issue of the controversy through explanatory type of questions dealing with "Why did the event occur?" and "What is the reason for the conflict?" A discussion based on analysis will explore the source of conflict and center on the disputed meaning of words and the political, social and ideological differences of the discussion.
- Lesson 4 treats the *total controversy* as a learning activity. The questions are reflective dealing with "What did you learn?" and "How did you change?" The questions are also predictive, dealing with "What would happen if. . .?" or "Given a different situation, as in. . .how would you respond?"

TABLE I

DISCUSSING CONTROVERSIAL ISSUES[11]

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Course objective: Develop skills for discussing controversial issues effectively.

LESSON 1

OBJECTIVE: Have an open discussion in which people feel free to say what they think.

Moderators	Participants
1. Support every person's right to his own opinion.	1. Talk to each other, moderately.
2. Use supportive silence to promote group interaction.	2. Don't monopolize.
3. Distribute participation by calling on silent group members.	3. Ask others what they think.
	4. Don't engage in personal attack.

(Continued)

LESSON 2

OBJECTIVE: Listen to others and keep the discussion focused.

Moderators	Participants
1. State the issues at the beginning of the discussion.	1. Listen to others' ideas.
2. Restate the issue to keep the discussion focused.	2. Acknowledge others' ideas.
3. Summarize statements made by participants.	3. Question irrelevant.

LESSON 3

OBJECTIVE: Analyze different points of view.

Moderators	Participants
1. State areas of agreement or disagreement.	1. Ask for clarification.
2. Ask for temporary agreements to break deadlocks.	2. Ask for reasons for others' opinions.
3. Ask for clarification.	3. Give reasons for your opinions.
4. Ask for reasons why someone holds a particular viewpoint.	

LESSON 4

OBJECTIVE: Evaluate the effectiveness of a discussion.

Moderators	Participants
1. Ask for a brief review.	1. Review the main points of the discussion.
2. Ask participants to explain viewpoints different from their own.	2. Explain viewpoints different from yours.
3. Ask participants to tell their current opinion and how the discussion affected it.	3. Tell your current opinion and how the discussion affected it.
4. Ask about the next step for the group, or individuals.	4. Suggest the next step for the group, or for you personally.

Problems of Imple

This approach to values clarification is r
of this type of instruction would be too d
and the teacher. The approach contains
process which was used so ably by Socrate
"know themselves." An overuse of co
clarification just another ritualized class
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relatively safe to handle in class becaus
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same manner as a biologist would his subj
and emotional topic like race conflict is t
protection vs. law and order" or "human r
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rather than an emotional, treatment. It co
issues can be treated in such a rational scien

Personal Values: The Open-Ended Approach

A Description of Open-Ended Appr

This strategy deals with ethical and
remain open to continued questioning and
these issues can best be drawn from art,
type of material that typically belongs to t
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LESSON 2

Participants

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ion.	2. Acknowledge others' ideas.
keep	3. Question irrelevant.
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LESSON 3

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	2. Ask for reasons for others' opinions.
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LESSON 4

the effectiveness of a discussion.

	1. Review the main points of the discussion.
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from	2. Explain viewpoints different from yours.
tell	3. Tell your current opinion and how the discussion affected it.
and	
cted	
for	4. Suggest the next step for the group, or for you personally.
s.	

Problems of Implementation

This approach to values clarification is rigorous, and a steady diet of this type of instruction would be too demanding on the students and the teacher. The approach contains elements of the Socratic process which was used so ably by Socrates to force his students to "know themselves." An overuse of controversy makes values clarification just another ritualized classroom process. When the approach is utilized students should have some voice in the issues that are selected for discussion and should have access to adequate amounts of information on the issue. Finally, the students should be placed into small groups to facilitate exchange of ideas. Little meaningful discussion is possible in a group of over 10 students.

A second danger in the approach is that the issues are public rather than private. Public issues have the advantage of being relatively safe to handle in class because they are amenable to scientific analysis and solution. Public issues can be handled in the classroom because they can be taken apart and analyzed in much the same manner as a biologist would his subject. When a controversial and emotional topic like race conflict is treated in terms of "equal protection vs. law and order" or "human rights vs. property rights" the topic has reached a level of generality which allows a rational rather than an emotional, treatment. It could be that not all public issues can be treated in such a rational scientific manner.

Personal Values: The Open-Ended Approach

A Description of the Open-Ended Approach

This strategy deals with ethical and social issues that should remain open to continued questioning and inquiring. The content of these issues can best be drawn from art, drama, and poetry or the type of material that typically belongs to the humanities. The issues raised in this open-ended approach to values are personal ones which students must grapple with over a lifetime, and, by their nature, these issues defy the closure typical of performance-based instruction. Stenhouse[12] has described the type of issues used in Britain's *Humanities Curriculum Project* as war; education; the family; relations between the sexes; people and work; proverty; living in cities; law and order; and race relations. Although the issues are similar in name to issues treated in other curriculum projects, the method Stenhouse describes is different. He describes a pattern of teaching with the following seven characteristics:

1) The fundamental educational values of rationality, imagination, sensitivity, readiness to listen to the views of others, and so forth, must be built into the principles of procedure in the classroom.
2) The pattern of teaching must renounce the authority of the teacher as an "expert" capable of solving value issues since this authority cannot be justified either epistemologically or politically. In short, the teacher must aspire to be neutral.
3) The teaching strategy must maintain the procedural authority of the teacher in the classroom, but contain it within rules which can be justified in terms of the need for discipline and rigor in attaining understanding.
4) The strategy must be such as to satisfy parents and pupils that every possible effort is being made to avoid the use of the teacher's authority position to indoctrinate his own views.
5) The procedure must enable pupils to understand divergence and hence must depend upon a group working together through discussion and shared activities. In such a group, opinions should be respected, and minority opinions should be protected from ridicule or from social pressure.
6) In sensitive issues, thought must be given to preserving privacy and protecting students, e.g., illegitimate children, children from broken homes, children of prostitutes, should be born in mind when discussing the family or relations between the sexes.
7) Above all, the aim should be understanding. This implies that one should not force pupils toward opinions or premature commitments which harden into prejudice. Nor should one see particular virtue in change of view. The object is that the pupil should come to understand the nature and implications of his point of view, and grow to adult responsibility by

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The Open-Ende

The discrepant data and values an
geared to promote a more rational value
student. Both lead the students toward so
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grappling with questions like "What is hu
"How did they get that way?" and "H
so?" - questions which can never be c
answered.[13]

The open-ended approach is based or
promotes the free flow of ideas ar
opportunity to share their feelings, attitu
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paraphrasing which forces the teacher to
saying and to keep the discussion open.
provides direction in the use of paraphrasi

PARAPHRASIN
A Basic Communication
Improving Interpersonal Re

The Problem

Tell somebody your phone number a
to make sure he heard it correctly.
complicated statement, most people w
disagreement without trying to insure th
what you intended. Most people seem
understand from a statement is what the o

How do you check to make sure th
person's ideas, information or suggestions
do you know that his remark means the
him?

Of course, you can get the other pers
asking, "What do you mean?" or "Tell n
don't understand." However, after he ha
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harden into prejudice. Nor should one
in change of view. The object is that the
understand the nature and implications
, and grow to adult responsibility by

adopting it in his own person and assuming accountability for it. Whether or not the pupil changes his point of view is not significant for the attainment of understanding.

The Open-Ended Model

The discrepant data and values analysis approaches are both geared to promote a more rational value position on the part of the student. Both lead the students toward some type of consensus based on additional conflicting data or a problem solving approach. In *Man: A Course of Study*, for example, students spend the entire year grappling with questions like "What is human about human beings?" "How did they get that way?" and "How can they be made more so?" - questions which can never be completely or satisfactorily answered.[13]

The open-ended approach is based on a discussion process which promotes the free flow of ideas and provides students the opportunity to share their feelings, attitudes and experiences. One of the best techniques to insure this open-ended dialogue is paraphrasing which forces the teacher to listen to what a student is saying and to keep the discussion open. The reprint which follows provides direction in the use of paraphrasing.

PARAPHRASING
A Basic Communication Skill For Improving Interpersonal Relationships[14]

The Problem

Tell somebody your phone number and he will usually repeat it to make sure he heard it correctly. However, if you make a complicated statement, most people will express agreement or disagreement without trying to insure that they are responding to what you intended. Most people seem to assume that *what they understand* from a statement is what the other intended.

How do you check to make sure that you understand another person's ideas, information or suggestions as he intended them? How do you know that his remark means the same to you as it does to him?

Of course, you can get the other person to clarify his remark by asking, "What do you mean?" or "Tell me more," or by saying, "I don't understand." However, after he has elaborated, you still face the same question. "Am I understanding his idea as he intended it to be understood?" Your feeling of certainty is no evidence that you do in fact understand.

The Skill

If you state in your own way what his remark conveys to you, the other can begin to determine whether his message is coming through as he intended. Then, if he thinks you misunderstood, he can speak directly to the specific misunderstanding you have revealed. The term "paraphrase" can be used for *any means of showing the other person what his idea or suggestion means to you.*

Paraphrasing, then, is any way of revealing your understanding of the other person's comment in order to test your understanding.

An additional benefit of paraphrasing is that it lets the other person know that you are interested in him. It is evidence that you do want to understand what he means.

If you can satisfy the other that you really do understand *his* point, he will probably be more willing to attempt to understand your views.

Paraphrasing, thus, is crucial in attempting to bridge the interpersonal gap. 1) It increases the accuracy of communication, and thus the degree of mutual or shared understanding. 2) The act of paraphrasing itself conveys feeling. . .your interest in the other person, and your concern to see how he views things.

Learning to Paraphrase

People sometimes think of paraphrasing as merely putting the other person's ideas in another way. They try to say the same thing with different words. Such wordswapping may result merely in the illusion of mutual understanding. See the following example:

Sarah: Jim should never have become a teacher.

Fred: You mean teaching isn't the right job for him?

Sarah: Exactly! Teaching is not the right job for Jim.

Instead of trying to reword Sarah's statement, Fred might have asked himself, "What does Sarah's statement mean to me?" In that case the interchange might have sounded like this:

Sarah: Jim should never have become a teacher.

Fred: You mean he's too harsh on the children. . .maybe even cruel?"

Sarah: Oh, no. I meant that he has such expensive tastes that he can't ever earn enough as a teacher.

Fred: Oh, I see. You think he should have gone into a field that would have insured him a higher standard of living?

Sarah: Exactly! Teaching is not the right job for Jim.

Effective paraphrasing is not a trick or
from an attitude, a desire to know about w
to satisfy this desire you reveal the meaning
so that the other can check whether it
intended to convey.

If the other's statement was general,
specific to you:

Larry: I think this is a very poor textbo

You: Poor? You mean it has too many

Larry: No, the text is accurate, but
easily.

Possibly the other's comment suggests

Laura: This text has too many omissio

You: Do you mean, for example, that
the Negro's role in the development of

Laura: Yes, that's one example. It als
the development of the arts in America.

If the speaker's comment was very spec
general idea to you.

Ralph: Do you have 25 pencils I can bo

You: Do you just want something for
about 15 ballpoint pens and 10 or 11 p

Ralph: Great. Anything which writes w

Sometimes the other's idea will sugges
you.

Stanley: I think the teachers' union ac
the administration has ignored them to

You: Do you mean that the teach
militant now if the administration ha
the past?

Stanley: Certainly. I think the teacher
more and more desperate measures.

To develop your skill in understanding
of conveying your interest in understand
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The next time someone is angry with
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at he has such expensive tastes that he
teacher.
k he should have gone into a field that
higher standard of living?
s not the right job for Jim.

Effective paraphrasing is not a trick or verbal gimmick. It comes from an attitude, a desire to know about what the other means. And to satisfy this desire you reveal the meaning his comment has for you so that the other can check whether it matches the meaning he intended to convey.

If the other's statement was general, it may convey something specific to you:

Larry: I think this is a very poor textbook.

You: Poor? You mean it has too many inaccuracies?

Larry: No, the text is accurate, but the book comes apart too easily.

Possibly the other's comment suggests an **example** to you.

Laura: This text has too many omissions; we shouldn't adopt it.

You: Do you mean, for example, that it contains nothing about the Negro's role in the development of America?

Laura: Yes, that's one example. It also lacks any discussion of the development of the arts in America.

If the speaker's comment was very specific, it may convey a **more general** idea to you.

Ralph: Do you have 25 pencils I can borrow for my class?

You: Do you just want something for them to write with? I have about 15 ballpoint pens and 10 or 11 pencils.

Ralph: Great. Anything which writes will do.

Sometimes the other's idea will suggest its **inverse** or **opposite** to you.

Stanley: I think the teachers' union acts so irresponsible because the administration has ignored them too long.

You: Do you mean that the teachers' union would be less militant now if the administration had consulted with them in the past?

Stanley: Certainly. I think the teachers' union is being forced to more and more desperate measures.

To develop your skill in understanding others, try different ways of conveying your interest in understanding what they mean and revealing what the other's statements mean to you. Find out what kinds of response are helpful ways of paraphrasing for you.

The next time someone is angry with you or is criticizing you, try to paraphrase until you can demonstrate that you understand what he is trying to convey as he intends it. What effect does this have on your feelings and on his?

RULES FOR EFFECTIVE AND MEANINGFUL COMMUNICATION[15]

(General Conditions by the Humanities Education Center)

1. What is going on "here and now" is where we work. Your response to interactions within this group, the feelings and thoughts you are experiencing which affect your interactions with this group, all are "here and now" material. Also, it is most useful to talk **to** a person rather than **about** him. We call talking about someone instead of to him "gossip."
2. Sharing our feelings about each other is more important and more useful than sharing our ideas, opinions, or beliefs about each other.
3. The speaker is the world's sole expert on his own feelings. You may be good at guessing what he is feeling, but it is only an attribution until the speaker affirms **his own feeling.**
4. Asking questions is a way of having someone else reveal his feelings first. Often we ask questions when we really want to make a statement. But it is less useful to have someone else make the statement for us, via their answer to our questions. Make your own statements. Take responsibility for your own feelings.
5. Feedback works best when it is non-evaluative and non-judgmental and is given by putting your own feelings on the line. It doesn't help to tell someone he is "bad" or "good." But it does help to let him know what you feel towards him and what feelings are excused in you in response to his words or acts. And always in the here and now!
6. Initiating direct confrontation is valuable, while going underground, getting digs in, throwing innuendoes, or generally being convoluted, postpones growth inherent in conflict.
7. Freedom and truth and openness do not have absolute value and can be senselessly destructive if they are not employed in a context of sensitive responsibility to others. Neither "dumping on people" nor "hitting and running" are ever useful.
8. Defensiveness is not helpful. Someone else's feelings about YOU may certainly be only "his problem." It is, however, data for you. To write off unpleasant feedback and call it "his problem" is usually a defensive manuever. We define defensiveness as refusing to listen to and accept another's feelings about you.

9. Risk-taking and self-exposure i
need to treat with tenderness t
must be careful not to use ano
down, or to one-up him.
10. Risk-taking and self-exposure a
individual and to the group. Y
by keeping quiet. You can also o
11. Some useful phrases are. . ."I
"Here's some feedback for you.
feedback about how I. . ." "I
of. . ." "My feelings are. . ."
"Where are you? What are you fe

Problems of Imp

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Application

In Application "A" you will work
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AND MEANINGFUL COMMUNICATION[15]

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tions within this group, the feelings and
xperiencing which affect your interactions
l are "here and now" material. Also, it is
to a person rather than **about** him. We call
ne instead of to him "gossip."
s about each other is more important and
aring our ideas, opinions, or beliefs about

world's sole expert on his own feelings.
t guessing what he is feeling, but it is only
the speaker affirms **his own feeling.**
a way of having someone else reveal his
we ask questions when we really want to
But it is less useful to have someone else
for us, via their answer to our questions.
ements. Take responsibility for your own

best when it is non-evaluative and
is given by putting your own feelings on
t help to tell someone he is "bad" or
es help to let him know what you feel
at feelings are excused in you in response
And always in the here and now!
onfrontation is valuable, while going
ng digs in, throwing innuendoes, or
nvoluted, postpones growth inherent in

and openness do not have absolute value
ly destructive if they are not employed in
sitive responsibility to others. Neither
le" nor "hitting and running" are ever

t helpful. Someone else's feelings about
be only "his problem." It is, however,
te off unpleasant feedback and call it "his
ly a defensive manuever. We define
using to listen to and accept another's

feelings about you.

9. Risk-taking and self-exposure in others needs support. We need to treat with tenderness those among us who risk. We must be careful not to use another's revelations to put him down, or to one-up him.
10. Risk-taking and self-exposure are usually worthwhile to the individual and to the group. Yes, you can avoid discomfort by keeping quiet. You can also often avoid growing.
11. Some useful phrases are. . ."I just got in touch with. . ." "Here's some feedback for you." "Would you give me some feedback about how I. . ." "I'm feeling. . ." "I'm aware of. . ." "My feelings are. . ." "Here's where I'm at. . ." "Where are you? What are you feeling?"

Problems of Implementation

The possible problems with the open-ended approach is in the demanding role that it imposes on the teacher. Skill in the technique of paraphrasing would enable the teacher to begin experimentation with the open-ended approach, but it would take years to develop the communication skills to perfect the approach in the classroom. The approach would also require that the teacher be sensitive to the types of structures that permit this approach in the classroom. Because it is so personal, the approach demands small group instruction and a climate that will allow every student a chance to be heard and be responded to by the teacher. The approach should not be overused, because there are some personal issues that perhaps should not be treated in any classroom environment. The approach is rigorous and demanding, and though the payoff in value clarification is high, so are the risks for both the student and the teacher.

Application

In Application "A" you will work through and develop three values clarification activities representing intellectual, democratic, and personal values. In most cases values education will be more meaningful if it is an integral and developmental part of a larger unit of study.

Application "A"

Exercise 1

Directions: Administer Quiz 1 and 2 to yourself. After experiencing the content of the test and checking your answers, write a brief description of how you would use the tests to develop a discrepant data learning activity. Based on that description fill in the components of the discrepant data model in the boxes provided.

Quiz 1[16]

1. Jim Brown was a famous black athlete of the 1960's. What sport did he play?
   a. Baseball b. Basketball c. Football d. Track
2. Angela Davis gained great popularity as of late with her release of a new hit song?
   a. True b. False
3. Which of the following does not belong?
   a. Stokes b. Hatcher c. Blue d. Powell
4. Nicknamed the "Say-hey kid" this man was to make a popular name in the American public eye in the 1950's, 60's, and 70's.
   a. James Meredith b. Wilt Chamberlin c. Willie Mays
   d. "Flip"
5. The opposite of square is?
   a. Round b. Up c. Down d. Lame e. Hip
6. Kareem Abdul Jabar is, in the opinion of many people, the top black band leader today?
   a. True b. False
7. "Golden Boy" refers to which of the following individuals?
   a. Isaac Hays b. Sammy Davis c. Mohammed Ali
   d. Oscar Robertson
8. If a man is called a "blood" then he is a ?
   a. Fighter b. Mexican-American c. Redman or Indian
   d. Black
9. Which of the terms below does not belong?
   a. Blues b. Ragtime c. Dixieland d. Jazz
10. Of the Black Members of Congress, who hold seats in the federal legislature, Edward Brook of Massachusetts, is the only Republican.
    a. True b. False

Quiz 2

1. Jazz pianist Ahmad Jamal took an Ara
   really famous. Previously he had some
   his "slave name." What was his previous
   a. LeRoi Jones b. Wilbur McDou
   d. Andy Jones
2. Who did Stagger Lee kill (in the famous
   a. His mother b. Frankie c. Jo
   e. Billy
3. "T-Bone Walker" became famous for pl
   a. Trombone b. Piano c. "T-F
   e. "Hambone"
4. Cheap chitlings (not the kind you pu
   counter) will taste rubbery unless they
   How soon can you quit cooking them to
   a. 45 minutes b. 2 hours c. 24
   e. One hour
5. A Handkerchief head is
   a. A cool cat b. A porter c. An
   d. A religious fanatic
6. "Bo-Diddley" is a
   a. Game for children b. Down home
   dance d. Down home singer e. Mo
7. How much does a "short dog" cost?
   a. $0.15 b. $0.35 c. $0.05
8. If you throw the dice and "7" is sho
   facing down?
   a. "Seven" b. "Snake Eyes" c. "Box
   e. "Eleven"
9. *Jet* is
   a. An East Oakland motorcycle clu
   in West Side Story c. A news and
   way of life for the very rich
10. Many people say that "Juneteenth" (Ju
    legal holiday because this is the day whe
    a. The slaves were freed in the Unite
    b. The slaves were freed in Texas
    c. The slaves were freed in California
    d. Martin Luther King was born
    e. Booker T. Washington died

"A"

Exercise 1

Quiz 1 and 2 to yourself. After
tent of the test and checking your
description of how you would use the
repant data learning activity. Based on
the components of the discrepant data
vided.

Quiz 1[16]

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c. Dixieland d. Jazz
Congress, who hold seats in the federal
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Quiz 2

1. Jazz pianist Ahmad Jamal took an Arabic name after becoming really famous. Previously he had some fame with what he called his "slave name." What was his previous name?
   a. LeRoi Jones b. Wilbur McDougal c. Fritz Jones
   d. Andy Jones
2. Who did Stagger Lee kill (in the famous blues legend)?
   a. His mother b. Frankie c. Johnny d. His girlfriend
   e. Billy
3. "T-Bone Walker" became famous for playing
   a. Trombone b. Piano c. "T-Flue" d. Guitar
   e. "Hambone"
4. Cheap chitlings (not the kind you purchase at a frozen-food counter) will taste rubbery unless they are cooked long enough. How soon can you quit cooking them to eat and enjoy them?
   a. 45 minutes b. 2 hours c. 24 hours d. one week
   e. One hour
5. A Handkerchief head is
   a. A cool cat b. A porter c. An Uncle Tom
   d. A religious fanatic
6. "Bo-Diddley" is a
   a. Game for children b. Down home cheap wine c. New dance d. Down home singer e. Moejoe call
7. How much does a "short dog" cost?
   a. $0.15 b. $0.35 c. $0.05 d. $0.86
8. If you throw the dice and "7" is showing on the top, what is facing down?
   a. "Seven" b. "Snake Eyes" c. "Boxcars" d. "Little Joe"
   e. "Eleven"
9. *Jet* is
   a. An East Oakland motorcycle club b. One of the gangs in West Side Story c. A news and gossip magazine d. A way of life for the very rich

10. Many people say that "Juneteenth" (June 19) should be made a legal holiday because this is the day when
    a. The slaves were freed in the United States
    b. The slaves were freed in Texas
    c. The slaves were freed in California
    d. Martin Luther King was born
    e. Booker T. Washington died

Answers:
(Quiz 1): 1. c, 2. b, 3. c, 4. c, 5. e, 6. b, 7. b, 8. d, 9. a, 10. a.
(Quiz 2): 1.c, 2.e, 3. d, 4. c, 5. c, 6. d, 7. b, 8. a, 9. c, 10. d.

Describe how you would use the content from the tests to develop a discrepant data learning activity.

____
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____
____
____

Based on your description and the theory behind discrepant data, fill in the model below with the steps you would use to execute the lesson.

Discrepant Data Model

Stereotype

____
____
____________________ →
____
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Reinforcement

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____
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Discrepant Data

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____________________ →
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New Generalization

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A Prototype Applic
of the Discrepant Dat

The use of the discrepant data mode
curriculum materials. The discrepant dat
any materials and with any group of pe
myths that plague education is the infall
One of the stereotypes that have resulted
standardized testing is that minority grou
not score as highly as white children,
comparison.

One way to shatter the myth of test in
that most tests are culture bound. This
more appropriate for teachers than stud

Stereotype
The ability to pass a test is a function of a person's intelligence. ____________________

Discrepant Data
Test schedule "2" ____________________

Exercise 2

Directions: The episode which follow
jurisprudential approach from th
Project.[17] This approach to the anal
very closely the model for the ana
treated earlier in the chapter. Ass
the "Rooming House" issue and i
develop a series of two or thr
illustrate each step of the analysis

Mrs. Webster's Roomin

Ever since her husband died, Mrs. Webster h
from the small rooming house she operated.
the state passed a law that, among other th
on the basis of race, religion, or nationalit
didn't really like members of minority gr
more important, Mrs. Webster felt that if sh
her regular boarders might get angry and mo

. c, 4. c, 5. e, 6. b, 7. b, 8. d, 9.

l, 4. c, 5. c, 6. d, 7. b, 8. a, 9. c,

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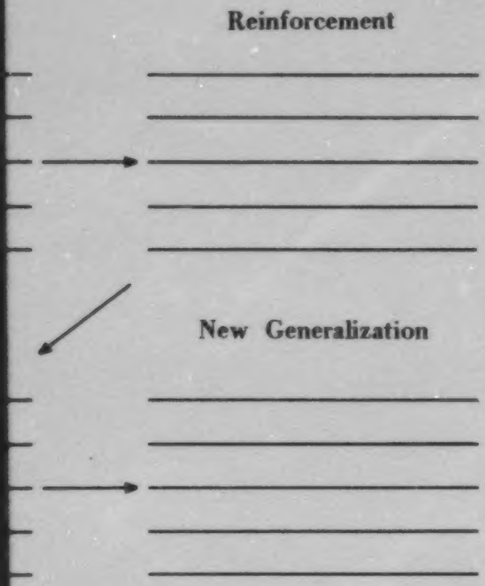
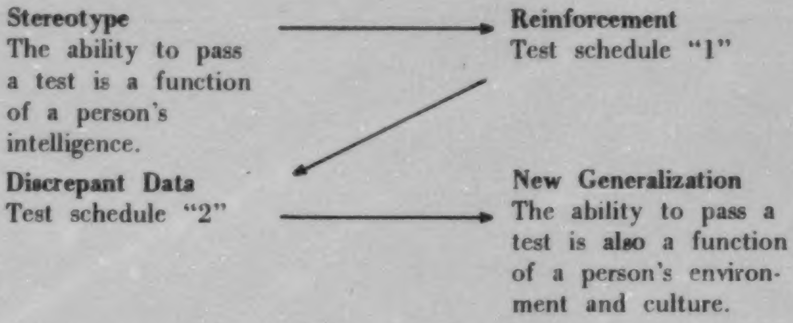


A Prototype Application of the Discrepant Data Model

The use of the discrepant data model is not limited to packaged curriculum materials. The discrepant data model could be used with any materials and with any group of people. One of the persistent myths that plague education is the infallibility of intelligence tests. One of the stereotypes that have resulted from the overzealous use of standardized testing is that minority group children, because they do not score as highly as white children, are considered inferior by comparison.

One way to shatter the myth of test infallibility is to demonstrate that most tests are culture bound. This use of the data would be more appropriate for teachers than students.



Stereotype
The ability to pass a test is a function of a person's intelligence.

Reinforcement
Test schedule "1"

Discrepant Data
Test schedule "2"

New Generalization
The ability to pass a test is also a function of a person's environment and culture.

Exercise 2

Directions: The episode which follows was used to illustrate the jurisprudential approach from the Harvard Social Studies Project[17]. This approach to the analysis of public issues follows very closely the model for the analysis of controversial issues treated earlier in the chapter. Assume you are going to teach the "Rooming House" issue and in preparation are going to develop a series of two or three questions which would illustrate each step of the analysis model.

Mrs. Webster's Rooming House

Ever since her husband died, Mrs. Webster had struggled to eke out a living from the small rooming house she operated. She was quite disturbed when the state passed a law that, among other things, prohibited discrimination on the basis of race, religion, or nationality in the renting of rooms. She didn't really like members of minority groups, especially Negroes. But, more important, Mrs. Webster felt that if she rented rooms to such people her regular boarders might get angry and move out. "It's my property," she told her neighbors, "and no one has a right to tell me whom I must allow to sleep in my house."

One night Mrs. Webster was disturbed at dinner by the ring of her doorbell. "A traveler to occupy my vacant room," she thought happily. When she opened the door she saw the face of a Negro. "My name is Mr. Jones. I've looked all over town. Do you have a vacant room for me tonight?" he asked. Mrs. Webster hesitated, "No, sorry we're all full."

A. **Prescriptive Issue**
1. ________________________________
2. ________________________________
3. ________________________________

B. **Descriptive Issue**
1. ________________________________
2. ________________________________
3. ________________________________

C. **Analytic Issue**
1. ________________________________
2. ________________________________
3. ________________________________

A Prototype Application of the Analysis of Public Issues Model

Oliver and Shaver contend that there is a democratic creed and that root values of human dignity and rational consent are standards upon which social consequences can be measured. *Prescriptive issues* center around the rightness or wrongness of a position in categories like public policy, ethics, and law. Pursuit of prescriptive issues will usually lead to a deadlock and if the discussants are to resolve the issue, they must address the facts of the case. *Descriptive issues* will describe the happenings that took place and explain the event that occurred. This objective treatment will lay the foundation for analytical issues which revolve around the disputed meaning of words or the different ways the issue can be viewed. In the rooming house case, for example, the problem could be one of property rights in the case of Mrs. Webster and human rights in the case of Mr. Jones. When these two issues conflict, the students would ideally clarify the issue in favor of the higher root value. In the rooming house case it would be on human rights rather than property rights.

Exercise 3

Directions: The readings which follo
songs and stories from the N
properly used the readings ca
issues centering on such person
and survival. There is no way to
than in your own classroom.
techniques suggested earlier in
generate discussion around B
questions in *Man: A Course of S*

- What is human about hu
- How did they get that wa
- How can they be made m

OLD KIGTAK

One bad winter when everyone was weak
and the village decided to move to new hu
Arfek had to leave behind his old mother-
to crawl over the ice and catch up if she c
It was a pitiful sight and we did not laugh
for it probably meant death for her:
The old lady was half-blind and crippled
and she was not wearing warm enough
but as long as she could crawl she followe
Life was still sweet to her.
No one here among us wishes harm to old
for we ourselves might live to be old some
but Arfek had no choice but to leave Old
He couldn't let her ride on the sledge,
for he had only two dogs, and as it was
he and his wife had to help drag the sledge
He couldn't go back to get her after they
because that would mean spending the nig
back and forth
when he had to be at the breathing holes
early next morning to hunt for food.
He could not allow his wife and children t
He had to think of them first
for they had their lives ahead of them,
rather than help an old worn-out woman
who was at death's door anyway.

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n rights in the case of Mr. Jones. When
students would ideally clarify the issue
ue. In the rooming house case it would
property rights.

Exercise 3

Directions: The readings which follow are taken from a series of songs and stories from the Netsilik Eskimo culture. If properly used the readings can raise open-ended value issues centering on such personal concerns as life, death, and survival. There is no way to apply this approach other than in your own classroom. Use the communication techniques suggested earlier in the chapter to seek to generate discussion around Bruner's three organizing questions in *Man: A Course of Study.*[18]

- What is human about human beings?
- How did they get that way?
- How can they be made more so?

OLD KIGTAK[19]

One bad winter when everyone was weak with hunger
and the village decided to move to new hunting grounds,
Arfek had to leave behind his old mother-in-law Kigtak
to crawl over the ice and catch up if she could.
It was a pitiful sight and we did not laugh
for it probably meant death for her:
The old lady was half-blind and crippled
and she was not wearing warm enough clothes for the weather
but as long as she could crawl she followed:
Life was still sweet to her.
No one here among us wishes harm to old people
for we ourselves might live to be old some day,
but Arfek had no choice but to leave Old Kigtak behind.
He couldn't let her ride on the sledge,
for he had only two dogs, and as it was
he and his wife had to help drag the sledge, weak as they were.
He couldn't go back to get her after they camped
because that would mean spending the night traveling
back and forth
when he had to be at the breathing holes
early next morning to hunt for food.
He could not allow his wife and children to starve:
He had to think of them first
for they had their lives ahead of them,
rather than help an old worn-out woman
who was at death's door anyway.

We have a custom that old people who cannot work anymore
should help death to take them.
Old Kigtak thought of this, left behind, all alone on the ice.
She knew she was useless and couldn't work anymore,
so why hang on as a burden to her children?
You see, it is not that we have hard hearts
but that the conditions of life here are merciless
and to survive in a land of ice and snow
sometimes we must be without pity.

HUNGER[20]

You, stranger, who only see us happy and free of care,
if you knew the horrors we often have to live through
you would understand our love of eating and singing and dancing.
There is not one among us
who has not lived through a winter of bad hunting
when many people starved to death.
We are never surprised to hear
that someone has died of starvation--we are used to it.
And they are not to blame: Sickness comes,
or bad weather ruins hunting,
as when a blizzard of snow hides the breathing holes.
I once saw a wise old man hang himself
because he was starving to death
and preferred to die in his own way.
But before he did he filled his mouth with seal bones,
for that way he was sure to get plenty of meat
in the land of the dead.
Once during the winter famine
a woman gave birth to a child
while people lay round about her dying of hunger.
What could the baby want with life here on earth?
And how could it live when its mother herself
was dried up with starvation?
So she put it out and let it freeze.
Then a seal was caught and the famine was over,
so the mother survived.
That is what may happen to people.
We have gone through it ourselves
and know what one may come to, so we do not judge them.
And how should one who has eaten his fill and is well
be able to understand the madness of hu
We only know that we all want so much

One important consideration when u
is that they are out of context. *Man: A*
Eskimo culture on its own terms by le
culture. It would be contrary to the
intent of the materials if the Eskimo
ridicule or considered to be "funny." Stu
cultural diversity, for through it they c
themselves.

Application "B"

In application "A" you experienced t
with accompanying content that woul
lessons. In application "B" you are aske
on the objectives from Chapter I, using o
models introduced in this chapter.

Notes

1 Louis Raths et al., *Values and*
1966), pp. 28-30. Reprinted by permissi
E. Merrill Publishing Company.

2 *Ibid.*, pp. 28-29.

3 *The Christian Science Monitor,* Ju
by permission from *The Christian Scienc*
the Christian Science Publishing Society.

4 Peter A. Gunter, "Mental Inertia
The End of an Era". *The Living Wildern*
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Adirondack Mountain Humanistic Educa

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HUNGER[20]
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eople.
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e to, so we do not judge them.
eaten his fill and is well

be able to understand the madness of hunger?
We only know that we all want so much to live!

One important consideration when using materials like the poems is that they are out of context. *Man: A Course of Study* treats the Eskimo culture on its own terms by letting students get inside the culture. It would be contrary to the spirit of the course and the intent of the materials if the Eskimo was in anyway held up to ridicule or considered to be "funny." Students need to be exposed to cultural diversity, for through it they can gain a better insight into themselves.

Application "B"

In application "A" you experienced three methodological models with accompanying content that would make suitable classroom lessons. In application "B" you are asked to develop a lesson, based on the objectives from Chapter I, using one of the values clarification models introduced in this chapter.

Notes

1 Louis Raths et al., *Values and Teaching* (Columbus, Ohio, 1966), pp. 28-30. Reprinted by permission of the publisher, Charles E. Merrill Publishing Company.

2 *Ibid.*, pp. 28-29.

3 *The Christian Science Monitor,* July 11, 1969, p. 1. Reprinted by permission from *The Christian Science Monitor.* Copyright c 1969 the Christian Science Publishing Society. All rights reserved.

4 Peter A. Gunter, "Mental Inertia and Environmental Decay: The End of an Era". *The Living Wilderness,* Spring 1970 copyrighted by the Wilderness Society, 1970. (The material was used in a values clarification workshop in Des Moines, Iowa on December 9-10, 1971 by Steve and Barbara Fuhrmann under the sponsorship of the Adirondack Mountain Humanistic Education Center.

5 From mimeographed materials distributed by the Adirondack Mountain Humanistic Education Center at its Des Moines workshop. See note 4 above.

6 Wisconsin State Social Studies Committee, *Knowledge, Process and Values in the New Social Studies* (Madison, Wisconsin, 1970), pp. 30, 40-41.

7 Ronald J. B. Carswell and Robert M. Cason, *Teaching Procedures for the New Social Studies: Using Media to Stimulate Inquiry*, provisional ed. The High School Geography Project (Washington, D.C.: The Association of American Geographers, 1970). Reprinted by permission of The Association of American Geographers.

8 James B. Macdonald and Esther Zaret, "A Study of Openness in Classroom Interaction," *Teaching: Vantage Points to Study*, ed. Ronald T. Hyman (New York, 1968), pp. 197-208.

9 Maurice P. Hunt and Lawrence E. Metcalf, *Teaching High School Social Studies* (New York, 1955).

10 Donald W. Oliver and James P. Shaver, *Teaching Public Issues in the High School* (Boston, 1966).

11 Meredith D. Gall, *Problems and Decisions in the Development of Training Programs* (San Francisco, 1973), p. 3. The table is taken from a minicourse entitled *Discussing Controversial Issues*, developed by, and reprinted with the permission of, Far West Laboratory for Educational Research and Development.

12 Lawrence Stenhouse "Handling Controversial Issues in the Classroom," an address delivered at the Fourth International Curriculum Conference, Lake Mohawk, N.Y., October 1969. Reprinted by permission of Mr. Stenhouse.

13 Peter Dow, *Talks to Teachers*, from *Man: A Course of Study* (Cambridge, Massachusetts, 1970), p.4.

14 Francis Link, from a handout on paraphrasing distributed at a workshop on *Man: A Course of Study* at the University of Northern Iowa, Cedar Falls, in 1972. Repri
Curriculum Development Associates, Washi

15 Reprinted from mimeographed m
values clarification workshop conducted
Fuhrmann on behalf of the Adirondac
Education Center in Des Moines, Decemb
by permission of the Center.

16 Adapted from Adrian Dove, "T
Intelligence Test," *The New Republic*, Dec

17 Oliver and Shaver, p. 35.

18 Dow, p. 4.

19 Text by Edward Field from *Songs*
Eskimo, part of the upper elementary MA
developed by the Social Studies Program
the National Science Foundation. Text
Education Development Center, Inc. Used

20 *Ibid.*, pp. 60-61.

rials distributed by the Adirondack Center at its Des Moines workshop.

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and Robert M. Cason, *Teaching Studies: Using Media to Stimulate* High School Geography Project iation of American Geographers, of The Association of American

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Northern Iowa, Cedar Falls, in 1972. Reprinted by permission of the Curriculum Development Associates, Washington, D.C.

15 Reprinted from mimeographed materials distributed at a values clarification workshop conducted by Steve and Barbara Fuhrmann on behalf of the Adirondack Mountain Humanistic Education Center in Des Moines, December 9-10, 1971. Reprinted by permission of the Center.

16 Adapted from Adrian Dove, "The Dove Counterbalance Intelligence Test," *The New Republic*, December 16, 1967, p. 7.

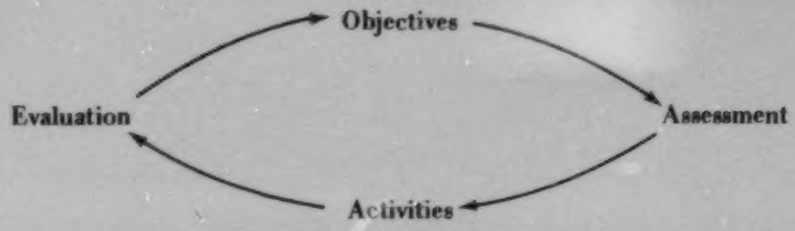
17 Oliver and Shaver, p. 35.

18 Dow, p. 4.

19 Text by Edward Field from *Songs and Stories of the Netsilik Eskimo*, part of the upper elementary MAN: A COURSE OF STUDY developed by the Social Studies Program of EDC under a grant from the National Science Foundation. Text copyright c 1967, 1968 Education Development Center, Inc. Used with permission.

20 *Ibid.*, pp. 60-61.

Chapter IV
Inquiry



In Chapter I the discussion focused on learning as the basic purpose of education, and suggested ways in which objectives could be written to embody certain knowledge, attitudes, and skills. Chapter II explored the cognitive domain, concentrating on how key understandings could be sequenced through the curriculum to change students' intellectual behavior. Chapter III explored the affective domain, concentrating on values clarification as a reasonably democratic and pedagogically sound process for changing students' public and personal behavior. Taken together, the application sections of both Chapters II and III would indicate that the line separating the cognitive and affective domains is often indistinguishable. This is due in part to similarities in the skill components of each domain of learning. These similarities will be evident in Chapter IV when the focus shifts to the inquiry process and to the question, "What sustains an open learning environment?"

The present chapter will bring the cognitive and affective domains together through an analysis of the thinking and valuing skills that make up inquiry. The purpose of Chapter IV is to explore inquiry through an analysis of the way learning theory and the instructional environment can be used to optimize learning. The chapter will begin by treating inquiry from a teacher's perspective, which is one of establishing and maintaining the conditions of learning. The chapter will conclude by treating inquiry from a student's perspective which is one of looking at learning through the behavior patterns of students involved in inquiry.

Experience

Inquiry is a difficult concept to deal with because of its popularity and its tendency to embrace all that is "good" in education. The experience section of Chapter IV will treat inquiry from the following perspectives:

- that of the student (task 1)
- that of the teacher (task 2)
- that of a curriculum developer (task 3)

These perspectives suggest attributes of the concept which will be elaborated on and applied throughout the chapter. In spite of these efforts, the real definition of inquiry will have to be a personal one articulated through the behavior of the individual teacher in the classroom.

Task 1: Experiencing an Inquiry Activity

Directions: You are to assume the role of an archeologist-student. Your task will be to discover as much as you can about a culture from the artifacts that the people left behind. Because it isn't possible to do field work on an actual archeological site the authors of the Anthropology Curriculum Study Project (ACSP)[1] have developed a sketch map containing most of what would typically be found at a real archeological site. The evidence suggested in the sketch map is from an authentic culture and you are to re-create the way of life and cultural patterns suggested by the archeological evidence. As is the case with field work in archeology, your findings will be limited, in general terms, to inferences but it is through such inferences that man has come to know himself. The site map is enclosed in the front cover of this book.

Before you begin your exploration it would be advisable to establish a search pattern. This could be done by developing 8-10 good questions which could be asked of the data and which in turn could organize the evidence you uncover. The cultural pyramid and information sheet which follow might suggest some of the questions one could raise. Write the questions in the spaces immediately following the pyramid and answer them on a separate sheet of paper as you explore the site map and its contents.

The pyramid in Figure 1 rests on a base of experience depicting the environment which confronts man in his day-to-day living. The environment is in a constant state of flux and explains the dynamic

nature of culture. Man must first
environment and then overcome the p
"tools" that will enable him and his su
power over and survive in the environm
can be mechanical (technology and sci
(humanities and social sciences), both of
the problems of survival faced by man.
these tools become part of his cultural
this perspective becomes progressivel
formalized. In time the tools that were
environment become a highly formalize
formalized but necessary institutions
transmit the value system. Culture lag r
for needed change to work its way up t
in culture is complicated further by
When a value can no longer be justified
at the base of the pyramid, it is often ju
at the apex of the pyramid. In the case
may be an all-knowing and all-powerful
philosopher king or figure like Adolf Hit
system like Laissez Faire or an ideology

The pyramid is a model of cul
simplification of reality. The mod
organizational framework for a better un
he adapts to and reflects the environmen

ask 1)
ask 2)
eveloper (task 3)

t attributes of the concept which will be roughout the chapter. In spite of these inquiry will have to be a personal one avior of the individual teacher in the

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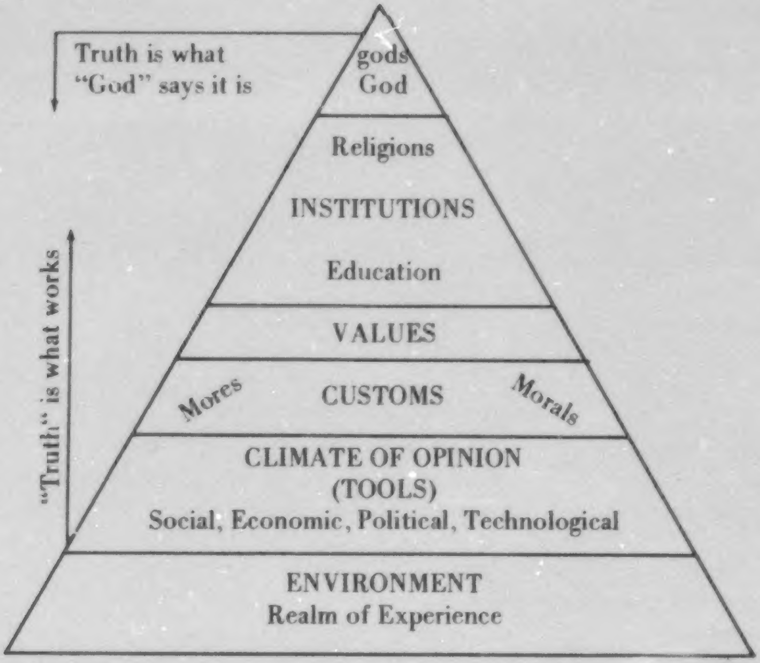
rests on a base of experience depicting fronts man in his day-to-day living. The state of flux and explains the dynamic nature of culture. Man must first be able to cope with his environment and then overcome the problems he experiences with "tools" that will enable him and his succeeding generations to gain power over and survive in the environment. The tools man develops can be mechanical (technology and science) or they can be social (humanities and social sciences), both of which are directly related to the problems of survival faced by man. Because man uses language, these tools become part of his cultural perspective. As time goes on this perspective becomes progressively more systematized and formalized. In time the tools that were once relative to the changing environment become a highly formalized value system with equally formalized but necessary institutions to preserve, operate, and transmit the value system. Culture lag results from the time it takes for needed change to work its way up through the pyramid. The lag in culture is complicated further by man's reluctance to change. When a value can no longer be justified in terms of the environment at the base of the pyramid, it is often justified by an authority figure at the apex of the pyramid. In the case of religion, the justification may be an all-knowing and all-powerful God. In politics it may be a philosopher king or figure like Adolf Hitler. In economics it may be a system like Laissez Faire or an ideology like Communism.

The pyramid is a model of culture and as a model is a simplification of reality. The model, however, provides the organizational framework for a better understanding of man and how he adapts to and reflects the environment in which he lives.

Figure 1
A Model of Culture Depicting the
Cause of Cultural Lag *


Truth is what
"God" says it is
gods
God
Religions
INSTITUTIONS
Education
VALUES
Mores
CUSTOMS
Morals
"Truth" is what works
CLIMATE OF OPINION
(TOOLS)
Social, Economic, Political, Technological
ENVIRONMENT
Realm of Experience

Inquiry questions to be asked of data:

1 ______________________________

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2 ______________________________

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3 ______________________________

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*This model was adapted from one used in R. Whitfield's lecture in a History of Education class at Eastern Washington State College in Fall Quarter of 1968.

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4 ______________________________

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Debriefing the Site Map Experience

Debriefing is important in any inqu
the student a chance to compare his fi
the real world. Because you have assu
will now be able to compare your own i
provided by the developers of the
however, you are asked to read the
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Figure 1
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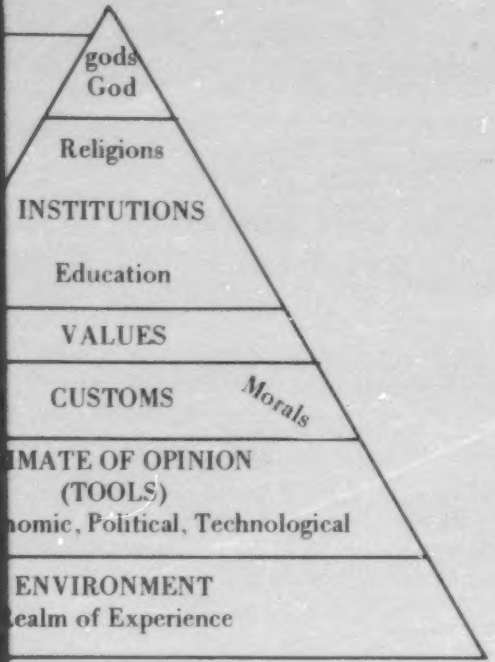
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from one used in R. Whitfield's lecture in a History
Washington State College in Fall Quarter of 1968.

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Debriefing the Site Map Experience

Debriefing is important in any inquiry activity because it affords the student a chance to compare his findings from the activity with the real world. Because you have assumed the role of student you will now be able to compare your own inquiry answers with the ones provided by the developers of the ACSP Project. In addition, however, you are asked to read the Description of the Kalahari Bushmen rather carefully because it, along with the experience you have already had with the site map, will be necessary background material for completing task No. 2. It is suggested that you complete all of the above exercise before turning the page, because the materials there suggest one set of answers against which you will match your own set of answers.

Description of the Kalahari Bushmen

The Site Map and Contents represents an abandoned Bushman village characteristic of the type still used in the Kalahari Desert of southwestern Africa. The hardy people who inhabit such villages are of Bantu stock living in the most inhospitable and inaccessible parts of the desert. Their villages constitute, on the average, some half dozen nuclear families. For three quarters of the year the land is dry and parched while the remaining two or three months bring a short, but relatively intense rainy season. During these months the dry lakes fill with water, the land turns green, and life in the desert becomes much easier for its inhabitants.

Although the Kalahari contains various groups of people, some who farm or raise domestic animals, the Bushmen exist in a hunting and gathering economy. Their survival depends mainly on the small game of the desert and the some 80 different species of plant food available to them. Their major source of vegetable food is the Mongongo nut which is found in the forests five to ten miles from their waterholes. Both men and women gather these nuts and a single person can accumulate enough of them to supply a family for a week or more. The people are extremely adept at gathering food, for they know what food is edible, where it is to be found, and when it will be most plentiful. They are so adept, in fact, that only two or three days out of the week are required of these subsistence activities, leaving considerable time free for the social events that are so important in the Bushman way of life.

The village itself consists of a grouping of grass huts made of saplings placed in post holes. The saplings are covered with grass and make up temporary shelters which provide protection against the elements, particularly the rains when they come. The huts are quickly constructed, for these villages are seldom used for more than five months of the year. Most of the Bushman life takes place in the open, often around the fireplaces which provide focal points for village activities. The cooking hearths contain the bones of many of the animals the people eat. The coals and ash from the fireplaces are used to roast the Mongongo nuts which are then broken open on flat rocks and eaten by the people. Tobacco is an important trade commodity in the villages and smoking is always a social occasion. When big game is killed people from surrounding camps come together and share the kill. This is also a time for trading, for gossip, for arranging marriages, and for music and dancing. Dancing has a

particular religious significance for the pe
ceremonial fires usually once or twice a m

Most of the implements used by the
their subsistence activities. The most c
digging stick which is used to obtain root
and wild fruit, constitute some 80% of t
men use the hunting implements which c
spears. The small size of the bows and arr
is limited and that a great deal of huntin
effective use. Snares are made from fibr
both men and women. Although little sk
the snares provide most of the meat for t
used by the people to chase bigger anima
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events women use beadwork to make n
themselves. Grooming is important in the
a time when artifacts serve a social
function. Despite their inhospitable envir
happy, gentle people with highly develope
and varied culture allows them to mak
environment has to offer.[2]

Task 2: Planning
Inquiry A

In this task you will set aside the role
once again become a teacher. You have
and Contents" exercise much as a stude
bring that experience to bear on planning
same subject matter content.

Directions: Good behavioral object
interaction between the teacher,
and the anticipated behavior o
interaction you have already h
through the "Site Map and Conten
developers of the ACSP Projec

the Kalahari Bushmen

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for music and dancing. Dancing has a particular religious significance for the people and it is done around ceremonial fires usually once or twice a month.

Most of the implements used by the Bushman deal directly with their subsistence activities. The most common implement is the digging stick which is used to obtain roots, which together with nuts and wild fruit, constitute some 80% of the Bushman diet. Only the men use the hunting implements which consist of bows, arrows, and spears. The small size of the bows and arrows suggest that their range is limited and that a great deal of hunting skill is required for their effective use. Snares are made from fibrous rope and are used by both men and women. Although little skill is required to use them, the snares provide most of the meat for the village. Hunting dogs are used by the people to chase bigger animals and to help to root out the animals that live underground. The skins of the larger animals are tanned and used for clothing and for carrying the great amount of nuts consumed by the people. Smaller bags are also used to carry things. These bags are often ornate and their construction represents an important social event for the women of the village. At these events women use beadwork to make necklaces and headbands for themselves. Grooming is important in the lives of the people, and it's a time when artifacts serve a social rather than a subsistence function. Despite their inhospitable environment, the Bushman are a happy, gentle people with highly developed social systems. Their rich and varied culture allows them to make the most of what their environment has to offer.[2]

Task 2: Planning an Inquiry Activity

In this task you will set aside the role of archeologist-student and once again become a teacher. You have experienced the "Site Map and Contents" exercise much as a student would and now you will bring that experience to bear on planning an inquiry activity on the same subject matter content.

Directions: Good behavioral objectives develop out of an interaction between the teacher, the subject matter content and the anticipated behavior of students. Based on the interaction you have already had as a student working through the "Site Map and Contents", and description by the developers of the ACSP Project, translate the site-map experience into a set of behavioral objectives of a learning activity on the Bushmen of the Kalahari. You may want to draw on the site map, the description, or the cultural pyramid for your objectives.

In the spaces provided below write a set of informational objectives for teaching the "Site Map and Contents" exercise. As you write these objectives you might ask yourself the following general questions:

- Why am I doing this? (Teaching about Bushmen through the frame of reference of an archeologist)
- Where am I going?
- What do I wish to accomplish?
- Why do I wish to accomplish this?
- How can I most effectively accomplish what I wish to accomplish?
- How will I know when my objectives are met?

Objectives

1.

2.

3.

4.

5.

6.

7.

8. etc.

Prototype Objectives

The objectives which follow were developed by the authors of ACSP and included in the teacher's guide for the activity. Use these

objectives as a feedback mechanism for
may be as good or better, but the ACSP
the project authors thought to be import

Student Objecti

1. Be able to use (rather than defin
anthropology, archeology, artifa
2. Use evidence and imagination to
of life of the people represented.
3. Identify factual evidence to answ
4. Recognize that inferences from
greatly in certainty (in the we
them).
5. Recognize that although traces l
dry, the peoples were not. F
complex, interesting and human
6. Recognize that archeological evi
of information about the whol
group.
7. Recognize that inferences about
lot on reasoning by analogy fr
differences between living and p
of error in such reasoning.
8. (a) Can identify human traits w
different culture (Bushman) as
objective explanations to the lil
accept the uncertainty of such in
9. Challenge other's inferences if ev
an alternative inference.
Review No. 6 and No. 7 (See Day

Directions: Based on the objectives
own experiences as a "student"
and description as well as the cu
of procedures that will accomp
might use the following "activity
in sequencing the teaching proce
your suggested procedures, and
your questioning sequence. Bo
should closely parallel the objecti

set of behavioral objectives of a learning
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map, the description, or the cultural
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rovided below write a set of informational
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uestions:

his? (Teaching about Bushmen through the
of an archeologist)

accomplish?
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effectively accomplish what I wish to

hen my objectives are met?

Objectives

totype Objectives

ollow were developed by the authors of
teacher's guide for the activity. Use these objectives as a feedback mechanism for your own objectives. Your's may be as good or better, but the ACSP objectives do suggest what the project authors thought to be important in the activity.

Student Objectives[3]

1. Be able to use (rather than define or memorize) these words: anthropology, archeology, artifact, evidence, prehistory, site.
2. Use evidence and imagination to make inferences about ways of life of the people represented.
3. Identify factual evidence to answer questions about a culture.
4. Recognize that inferences from archeological evidence vary greatly in certainty (in the weight of evidence supporting them).
5. Recognize that although traces left by past peoples are bone dry, the peoples were not. Rather, they were as alive, complex, interesting and human as people we now know.
6. Recognize that archeological evidence yields only fragments of information about the whole coherent life of a human group.
7. Recognize that inferences about non-living peoples depend a lot on reasoning by analogy from living peoples; and that differences between living and past cultures can be a source of error in such reasoning.
8. (a) Can identify human traits we share in common with a very different culture (Bushman) as well as differences; (b) Seek objective explanations to the likenesses and differences but accept the uncertainty of such inferences.
9. Challenge other's inferences if evidence or reasoning suggests an alternative inference.
   Review No. 6 and No. 7 (See Day 2 - Prototype Lesson)

Directions: Based on the objectives you have written and your own experiences as a "student" working with the site map and description as well as the cultural pyramid, prepare a set of procedures that will accomplish these objectives. You might use the following "activity analysis model" to help you in sequencing the teaching procedures. In Column "A" write your suggested procedures, and in Column "B" set down your questioning sequence. Both Column "A" and "B" should closely parallel the objectives you have written. In the prototype materials this activity took three class periods. Indicate for each day what materials are to be used.

Activity Analysis Model*

Ideal Lesson

In a learning activity students will be asked:

- to use → Cognitive skills
- on → Data
- to develop → Concepts
- which together form → Generalizations
- clarifying or changing → Attitudes and Values
- learning and practicing → Social Studies Perspectives.

Day 1
Instructional Procedures

Materials:

"A" **Suggested Procedures**	**"B"** **Questioning Sequence**

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*This model is adapted from one developed by Nicholas Helburn for the **High School Geography Project.**

Day 2
Instructional Procedures

Materials:

"A"
Suggested Procedures

this activity took three class periods.
what materials are to be used.

nalysis Model*

Ideal Lesson

use ——→ Cognitive skills
——→ Data
develop ——→ Concepts
ich together form —→ Generalizations
rifying or Attitudes and
changing ——→ Values
rning and Social Studies
practicing ——→ Perspectives.

Day 1
onal Procedures

"B"
Questioning Sequence

---

*developed by Nicholas Helburn for the High School Geography Project.

Day 2
Instructional Procedures

Materials:

"A" **Suggested Procedures**	**"B"** **Questioning Sequence**

Day 3
Instructional Procedures

Materials:

"A" Suggested Procedures	"B" Questioning Sequence

A Prototype Le

The procedures and objectives sugg
for the ACSP are adapted in the pages
design of the curriculum the "Site Map
three day topic entitled, "Study of
Compare and contrast your objectives,
strategy with the way the activity w
developers.

Day 1 – Materials: (One site map for e

Suggested Procedures	Questio
Introduce course and Topic 1 (A short student reading on the nature of anthropology and the anthropologist's perspective).	Objecti 1.
Familiarize students with new words.	anthrop archeol
Pass out site maps (Instruct students on use of the map key and numbered artifacts in contents list).	artifact 2.
Discuss "Inference"	
Ask for questions and inferences about people who lived at the map site. Write the most interesting questions and inferences on the board.	Objectiv 3.
Ask for evidence bearing on each question.	Objectiv 4.

Day 3
tructional Procedures

"B"
Questioning Sequence

A Prototype Lesson

The procedures and objectives suggested in the teacher's guide for the ACSP are adapted in the pages that follow. In the original design of the curriculum the "Site Map and Contents" was part of a three day topic entitled, "Study of Early Human Societies."[4] Compare and contrast your objectives, procedures, and questioning strategy with the way the activity was designed by the project developers.

Day 1 – **Materials: (One site map for each student)**

Suggested Procedures	**Questioning Sequence**
Introduce course and Topic 1 (A short student reading on the nature of anthropology and the anthropologist's perspective). Familiarize students with new words. Pass out site maps (Instruct students on use of the map key and numbered artifacts in contents list). Discuss "Inference"	Objective No. 1 1. How would you use the following words in context of the reading just completed? anthropology evidence archeology prehistory artifact site 2. What is the difference between an inference and a fact?
Ask for questions and inferences about people who lived at the map site. Write the most interesting questions and inferences on the board.	Objective No. 2 3. What questions would you ask of the site map to generate the most inferences.
Ask for evidence bearing on each question.	Objective No. 3 4. What things from the site map are easiest to make inferences about? What are the most difficult?

Day 1 (Continued)

Suggested Procedures	Questioning Sequence
Ask students to number inferences listed on board from most certain (No. 1) to least certain and discuss the order. Assign Homework: Have students pull together their inferences about the site map and write three to five paragraphs about "What life on the site MAY have been like." OK to mix fact and inference. Main thing is a **reasonable** reconstruction.	Objective No. 4 5. How would you rank order these inferences in terms of their certainty or the amount of evidence that supports them.

Day 2 -- Students' homework
Bushman filmstrip (and projector)
HACC record: "The Bushmen of the Kalahari Desert"
"People of the Kalahari" (S.R. p. 1)[5]

Suggested Procedures	Questioning Sequence
Have students quickly read to themselves the interpretations they wrote as homework.	Objective No. 5 6. Who would like to share their written descriptions of life on the site?
Tell students they will now see another kind of evidence about the same people and show filmstrip while playing record (30 min.) (Discuss the types of inferences not possible from archeological data.)	Objective No. 6 7. What types of inferences could not be made from the site map alone? Which could be made only by seeing the site first hand?

Day 2 (Continued)

Suggested Procedures	Que
Ask for differences and similarities between filmstrip information and students' speculation from archeological remains and discuss these. Ask students to think about **how** we could infer what lives of prehistoric peoples were like. Assign Homework: Read "People of the Kalahari". Write down two ways in which the people you know personally are like and two ways in which they are different. Choose similarities and differences that are important to you, not just the easiest ones to find.	Objectiv 8. 9. 10.

Day 3 -- Materials: Students' homework
"People of the Kalahari" (S.R. p
Bushman Site Map
Filmstrip projector
Selected Bushman frames

Suggested Procedures	Questioni
Ask for reports on homework notes.	Objective 11. Wh 12. Wh 13. W

	Questioning Sequence
ber ard) to the ther site five life een and s a	Objective No. 4 5. How would you rank order these inferences in terms of their certainty or the amount of evidence that supports them.

ork
p (and projector)
he Bushmen of the Kalahari Desert"
lahari" (S.R. p. 1)[5]

	Questioning Sequence
to ons see nce nd ing the not ical	Objective No. 5 6. Who would like to share their written descriptions of life on the site? Objective No. 6 7. What types of inferences could not be made from the site map alone? Which could be made only by seeing the site first hand?

Day 2 (Continued)

Suggested Procedures	Questioning Sequence
Ask for differences and similarities between filmstrip information and students' speculation from archeological remains and discuss these. Ask students to think about **how** we could infer what lives of prehistoric peoples were like. Assign Homework: Read "People of the Kalahari". Write down two ways in which the people you know personally are like and two ways in which they are different. Choose similarities and differences that are important to you, not just the easiest ones to find.	Objective No. 7 8. How would you compare your findings with the actual culture of the Bushman? 9. What analogies did you make from things familiar to you to similar things in the Bushman culture? 10. Do you imagine analogies could also explain about man in prehistoric times? How would you explain this?

Day 3 -- Materials: Students' homework notes
"People of the Kalahari" (S.R. p. 1)
Bushman Site Map
Filmstrip projector
Selected Bushman frames

Suggested Procedures	Questioning Sequence
Ask for reports on homework notes.	Objective No. 8 11. What traits do we share that are common to all people. 12. What differences do we share? 13. Why are there similarities and differences?

Suggested Procedures	Questioning Sequence
Discuss ways that environment influences the way people live. Show frames listed above as focus of discussion of environment. Students suggest inferences about environmental influence. Encourage and praise challenges of other's inferences, based on evidence or reasoning.	Objectives No. 8, 2, 3, 9 14. How does the environment influence the way people live? (What are the possibilities of making a living in the Kalahari? Why do the Bushmen often move? How big is the average group of Bushmen? Could it be much bigger? Why not? Why don't the Bushmen have many possessions? Why do the Bushmen put those little symbolic sticks in the ground? (Good chance to bring up the question of psychological needs.) Why do the Bushmen lack formal leaders and formal rules of behavior? What does the hunter have to know in order to survive?)
Have students compare information from site map alone with information added by filmstrip and reading. (Reinforce the site map). Introduce Topic II (Evidence of Change in Man and Culture	Objectives No. 6, 7 15. What did we learn from the archeological evidence alone? 16. How did we learn it? 17. What kind of evidence

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Suggested Procedures
during the Pleistocene) by discussing Objectives No. 6 and No. 7 (Topic I) Topic II will take a closer look at certain kinds of evidence: Stone tools and human skills.

Task 3: Inquiry
New Soc

Directions: The questions whic
rationale, objectives and instr
representative activity from t
projects like ACSP that have d
terms representing the view o
more than the view of the curri
will be drawn from the lesson
developed by the Project aut
inferences about the activity
principles that are either implic
materials.

I. Answer the following question
the Anthropology Curriculum St

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Questioning Sequence

Objectives No. 8, 2, 3, 9

14. How does the environment influence the way people live? (What are the possibilities of making a living in the Kalahari? Why do the Bushmen often move? How big is the average group of Bushmen? Could it be much bigger? Why not? Why don't the Bushmen have many possessions? Why do the Bushmen put those little symbolic sticks in the ground? (Good chance to bring up the question of psychological needs.) Why do the Bushmen lack formal leaders and formal rules of behavior? What does the hunter have to know in order to survive?)

Objectives No. 6, 7

15. What did we learn from the archeological evidence alone?
16. How did we learn it?
17. What kind of evidence

Suggested Procedures

during the Pleistocene) by discussing Objectives No. 6 and No. 7 (Topic I) Topic II will take a closer look at certain kinds of evidence: Stone tools and human skills.

Questioning Sequence

might we have used in order to find out more?

18. How well could we have done, even without the reading and filmstrip, even if the people had long since disappeared and no one else knew anything about them?

Task 3: Inquiry and the New Social Studies

Directions: The questions which follow will explore the rationale, objectives and instructional sequence used in a representative activity from the new social studies. It is projects like ACSP that have defined inquiry in operational terms representing the view of the curriculum practitioner more than the view of the curriculum theorist. Your answers will be drawn from the lesson in contrast to the way it was developed by the Project authors. Some answers will be inferences about the activity. Others will come from principles that are either implicitly or explicity stated in the materials.

I. Answer the following questions about the rationale behind the Anthropology Curriculum Study Program:

o What does the Project assume about the nature of the individual?

o What does the Project assume about the nature of society?

o How are the society and individual related?

o How does the Bushman learning activity answer the above questions?

II. Answer the following questions about the instructional procedures:

A) In the area of teaching strategies:

o Are students allowed to take an active role in their own learning? (explain)

o Do the strategies provide variety in learning? (explain)

o Are the teaching strategies consistent with the objectives of the lesson?

B) In the area of instructional sequence:

o Are cognitive skills ordered in such a way that they raise the level of student thought through the activity? (explain)

o Do the data in the activity re
use raise sound intellectual ar

o Whether students develop o
these concepts become tools
to understand their world? (e

o Are the generalizations st
application of the various
academically sound and
verification? (explain)

Reflections on the Inquiry Experience

The Anthropology Curriculum Study P
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that anthropology can be used to help them
the first assumption, the project authors
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- Do the data in the activity reflect reality, and does its use raise sound intellectual and value issues? (explain)
- Whether students develop or discover concepts, do these concepts become tools which students can use to understand their world? (explain)
- Are the generalizations students draw from the application of the various concepts or principles academically sound and subject to scientific verification? (explain)

Reflections on the Inquiry Experience

The Anthropology Curriculum Study Project was designed to develop the scholarly investigating man. Its rationale assumes two things: *one*, that students will be curious about their world, and *two*, that anthropology can be used to help them explore it. *In regard to the first assumption,* the project authors share with students the excitement of an archeological dig and the intellectual stimulation that comes from the scientific exploration of human behavior. *In regard to the second assumption,* ACSP treats the patterns of behavior of a less complex society for the insight it can provide into the student's own society.

The instructional procedures are consistent with the project rationale. The procedures require the teacher to assume a goal oriented posture in the classroom, which, in turn, require students to perform task-directed behavior. The variety of strategies on the part of the teacher requires an active involvement on the part of the student. The procedures are sequenced to raise the level of student thought through gathering data, making inferences, drawing conclusions, and applying insights to behavioral patterns found in the student's own society.

Inquiry teaching implies a predisposition to do what is necessary to optimize learning in the classroom. Although it is defined differently by different people, it will usually bring about a learning environment which matches a certain type of teacher initiating behavior with corresponding student behavior. Table 1 describes the roles of teacher and student in the inquiry method of teaching, but it might also be said to apply to good teaching in general.

Table 1
Inquiry Teaching: Role Descriptions

The Teacher	The Student
I. The teacher will be goal-oriented. A. His behavior will be purposeful. B. His content will be issue or problem-based. C. His facilitating behavior will promote goal achievement.	I. The student will be task-directed. A. His behavior will have focus. B. His curriculum materials will have meaning. C. His learning activity will be rational, developmental, and systematic.
II. The teacher will use a variety of teaching strategies. A. His specific strategies can be tied to selected educational objectives. B. Strategies can be matched to different learning styles. C. His strategies will be geared to develop the various domains of learning. D. His strategies will gradually reduce the need for teacher direction.	II. The student will take an active part in his own learning. A. His learning will be built on various modes of teaching. B. His learning can be individualized. C. His learning will be well-rounded based on public and personal
III. The teacher will sequence his instruction. A. He will capitalize on what the students already know. B. He will structure knowledge to make it teachable. C. He will raise the level of student thought whenever possible. D. He will require that knowledge be used.	II
IV. The teacher will maintain an open classroom. A. He will provide a variety of educational encounters. B. He will keep the channels of communication open. C. He will be flexible enough to pursue student ideas and interests when different from what	IV

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	The Student
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III. The teacher will sequence his instruction. A. He will capitalize on what the students already know. B. He will structure knowledge to make it teachable. C. He will raise the level of student thought whenever possible. D. He will require that knowledge be used.	III. The student will be directed toward learning rather than merely pleasing the teacher or getting grades. A. He will have an opportunity to excel in various ways. B. He will see logic and reason in what he learns and how he is learning it. C. He will find it rewarding to sustain and extend his thought processes. D. He will act on what he knows and use feedback from his action to develop a growth cycle.
IV. The teacher will maintain an open classroom. A. He will provide a variety of educational encounters. B. He will keep the channels of communication open. C. He will be flexible enough to pursue student ideas and interests when different from what	IV. The student will have choice over the direction his learning takes. A. He will have a stimuli rich learning environment. B. He will be a sounding board for others and others will be a sounding board for him C. He will have the freedom to make mistakes, but will also

was planned.

D. He will be fair and even-handed in his treatment of students.

E. He will engage in constant self-evaluation as part of his own growth cycle.

have the responsibility to work out his own solutions.

D. He will be secure in the knowledge that good behavior will be recognized and be rewarded.

E. He will have positive models of behavior to emulate.

Analysis

The problem with defining inquiry is that it can become all things to all people. The definition suggested at the conclusion of the last section is very much like what has been done throughout *Perspectives*. Inquiry does begin with a basic philosophical orientation and is then translated through educational planning and objectives into meaningful student behavior. There are different levels of thinking, acting, and valuing, therefore the knowledge, attitudes, and skills that go into instruction must be sequenced so that different levels of behavior will emerge. Understanding is more than learning facts or remembering data. It is the organization of data and facts in ways that are consistent with the changing nature of knowledge and with the individual who uses that knowledge.

Useful knowledge implies some type of structure, and the teacher must order content or teaching strategies in such a way that students develop tools which will help them organize their own experience. Some type of cognitive structure exists within students, and this structure is also important to the act of learning. Concepts, for example, could provide an organization framework for teaching and, at the same time, become tools which help the student organize his encounters into meaningful categories from which he can develop new questions, thereby generating new categories and new learning cycles.

In terms of the teacher inquiry involves a teacher in the important task of educational planning. From this perspective inquiry will be broken into the following cat

- o Philosophy and learning theory
- o Strategies and instructional sequence
- o The open learning environment

In terms of the student inquiry involves intellectual operations the knowledge of wh more meaningful instructional strategy. Tak of the student, inquiry will be divided into

- o Encounter
- o Intake
- o Storage
- o Motivation
- o Action
- o Control

By treating inquiry from both the tea perspectives the strategy will be defined in for the teacher and in terms of what it ca both cases however, inquiry has its limita pointed out in the pages which follow.

I. In Terms of the Teacher

Any teaching strategy should be geare teacher, to the nature of the subject being tr students who are involved in the learning. I to develop the scholarly investigating ma analytical, based on a logical structure of k of investigation used by subject matter sc purpose is to develop the public man, inqui and intuitive, based on personal dilemm individual choice-making. In every instance begin with the teacher and his view of the in

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- Philosophy and learning theory
- Strategies and instructional sequence
- The open learning environment

In terms of the student inquiry involves the student in a series of intellectual operations the knowledge of which will make inquiry a more meaningful instructional strategy. Taken from the perspective of the student, inquiry will be divided into the following categories:

- Encounter
- Intake
- Storage
- Motivation
- Action
- Control

By treating inquiry from both the teacher's and the student's perspectives the strategy will be defined in terms of what it can do for the teacher and in terms of what it can do for the student. In both cases however, inquiry has its limitations and these will be pointed out in the pages which follow.

I. In Terms of the Teacher

Any teaching strategy should be geared to the purpose of the teacher, to the nature of the subject being treated, and to the types of students who are involved in the learning. If the teacher's purpose is to develop the scholarly investigating man, the inquiry will be analytical, based on a logical structure of knowledge and the modes of investigation used by subject matter scholars. If the teacher's purpose is to develop the public man, inquiry can be both analytical and intuitive, based on personal dilemmas and the process of individual choice-making. In every instance, however, inquiry must begin with the teacher and his view of the individual and society.

A. Historical Origins

It would be safe to say that the late 19th Century could be considered watershed years in the history of intellectual thought in America and is the source of most of today's education theory. By the turn of the present century, pragmatism had emerged as a uniquely American philosophy reflecting the American experiences and its new preoccupation with science and evolution. The growth of industrialization, democracy, and mass education led to a healthy skepticism about the fixed value patterns that isolated many social, political, economic, religious, and educational realms from investigation by man. Dewey stripped learning of its absolutist veneer and provided it an alternative philosophical justification. The progressive education Dewey described was just one aspect of the broader reform movement which saw similar transformations in the areas of law, economics, politics, and historiography. Dewey's criticism of formalistic education centered on its contention, going back to Plato and Aristotle, that reality was considered a thing that existed apart from man. Dewey viewed reality as action, as a verb rather than a noun, and thus a moving, flowing concept embodied in man's changing experience. Because education was process-based it was imperative in a democracy that the processes going into education were democratic and not authoritative, dehumanizing and ritualistic.

It is also imperative that formal learning have focus and direction. If cultural preservation is a legitimate educational goal, then it is essential to master existing knowledge as a means to discovering new knowledge. Learning must incorporate the concepts, principles, theories, and constructs that the disciplines have to offer, but not as pieces of discrete data to be memorized, but as intellectual tools for further student inquiry.[1]

B. Analytic Inquiry

It is unfortunate that inquiry is often defined in terms of a formula requiring a five, six, or seven step problem-solving method. The most popular definitions of inquiry are in Bryon G. Massialas and C. Benjamin Cox, *Inquiry in Social Studies* (New York, 1966) and Edwin Fenton. Such a narrow definition of inquiry denies the complexity of the learning process and is contrary to what is known about the way learning takes place. In his influential little book, *The Process of Education*, 1960, Jerome Bruner suggested that there was more than one mode of inquiry, as claimed by the progressives. Instead, he proposed the existence of as many modes of inquiry as there were disciplines. This Brunerian proposal, coupled with massive federal funding in the 60's, brought on the new social studies movement. The work done by projects throughout the 60's indicates that inquiry may still be too narrowly defined. Planning for inquiry

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each individual that uses it.

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C. Intuitive Inquiry

The open nature of the intuitive
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situation simultaneously. The approach n
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may be facilitated through the structure of the various disciplines, but the ultimate act of inquiry may come from the structure within each individual that uses it.

The danger implicit in many of these analytical approaches to inquiry is that the steps may become ritualistic for the student and teacher. The powerful ideas of Bacon, Dewey, and Bruner are somehow compromised when students are required to "inquire" into tasks which have been exclusively chosen, organized and delineated by educators in a way that students "discover" concepts and generalizations contained in readings and case studies. This does not deny the importance of creating instructional conditions, but it does suggest that inquiry has been too narrowly defined. Inquiry is more than students following a formula to discover what the teacher already knows. Inquiry involves a deeper understanding of how students learn, and it is reflected in a set of teacher attitudes and response patterns based on that understanding.

C. Intuitive Inquiry

The open nature of the intuitive approach stems from the freedom it permits for inquiry into all aspects of the problem situation simultaneously. The approach not only allows for thinking convergently from the problem situation to its possible solutions, but also allows for divergent creative thinking requiring the movement from the solution to the problem situation. The search model the inquirer develops is unique to his own view of the problem situation and the method of approaching the problem is not predetermined in advance for the learner. This intuitive approach has the advantage of freeing the students from lock-step formulas based more on hindsights than on how pupils learn.

The problem with intuitive inquiry, as with analytical inquiry, is the potential overuse of the approach. Inquiry, it must be remembered, is not the only teaching strategy available, and there are times when lectures are functional and when learning is better served by expository teaching techniques. It is just as ludicrous, however, to attempt an encyclopedia coverage of subject matter, much of which, because of the knowledge explosion, will be non-functional before the student can even apply it. A teacher must develop a sensitivity to the types of learning situations where inquiry techniques can be successfully used. This sensitivity will promote less teacher talk in the classroom and encourage a learning environment which allows for thoughtful questions and prizes productive, rather than reproductive, student responses. An inquiry-based teaching strategy will equip students to live in a world of change and will provide them the means to continue learning long after they leave the classroom.

So far this discussion of inquiry has treated two types of inquiry. In the intuitive or open-ended inquiry mode, students will share experiences, generate ideas, and seek problems. The questions and problems raised during this type of inquiry can then become the content of the second type of inquiry which is convergent in nature and is problem-solving rather than problem-seeking. Where the first type of inquiry breaks consensus, the second type is geared to create consensus, but not in the uncritical, presumptuous manner of traditional social studies teaching. In coming to consensus, students observe, hypothesize, gather data, and test tentative conclusions. In the first mode of inquiry, creative thought is of major importance, while in the second mode, analytical thought is the primary consideration. In either case, inquiry-teaching is a difficult and demanding approach. Success requires an inquiry posture on the part of the teacher. To be successful, the teacher must constantly experiment in the classroom and, through that experimentation plan, execute, and evaluate a variety of inquiry approaches. Inquiry-teaching demands that certain risks be taken in the classroom, but if inquiry is successful, the payoff comes in terms of excited students and a challenging environment in which to learn.

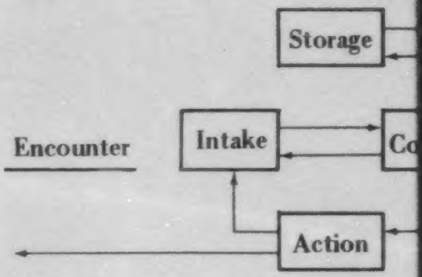
II. In Terms of the Student

As inquiry is usually defined, it deals with ways of organizing materials for instruction. The field theorists have been so concerned with organizing student experience that they have neglected to explore what students do with that experience. The behaviorists, on the other hand, have concentrated so much on measuring terminal outcomes they have little idea of the process going into the outcomes. Suchman[6] has developed a Learning - Thinking - Acting model which represents the intellectual operations of the human system. Although his model shifts attention away from the actions and plans of educators to the learning, thinking, and motivation of students, his model is compatible with the types of inquiry treated in this chapter.

The model in Figure 2 represents a cybernetic view of how an individual learns. It looks at how the individual encounters his environment and how he takes in, stores, experiences.

Although inquiry is relatively compl to organize ideas and clarify the relatio them. Because the Suchman model is dia be expedient to explain it through an e simple. For this purpose the trashcan pic used to explain the terminology used in Figure 3 is a non-example of inquiry, point of departure for later examples whi

Figure 2
The Learning-Thinking-A



The Suchman model represents tw encounter at the left of the model i experience that grows out of the enviro components that make up the bulk o individual and the processes he goes thr with various encounters from his world and educational surroundings would rep the ingredients of the bucket would be th of the model in Figure 3 would represent reaction to the encounters he is provi attempt to sort out the meaning o components:

A. Encounter

A) Describe the type of encounter th

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e 2 represents a cybernetic view of how an
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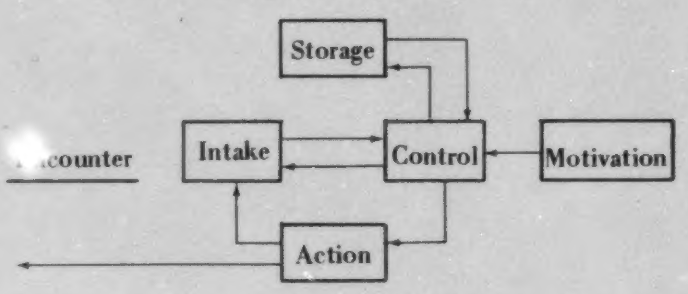
environment and how he takes in, stores, retrieves, and acts on those experiences.

Although inquiry is relatively complicated this model can serve to organize ideas and clarify the relationships which exist between them. Because the Suchman model is diagrammatically simple, it will be expedient to explain it through an example that is itself rather simple. For this purpose the trashcan picture will be resurrected and used to explain the terminology used in the model. The picture in Figure 3 is a non-example of inquiry, but it will provide a useful point of departure for later examples which will demonstrate inquiry.

Figure 2
The Learning-Thinking-Acting Model



The Suchman model represents two aspects of reality. The encounter at the left of the model in Figure 2 represents an experience that grows out of the environment. The five interrelated components that make up the bulk of the model represent the individual and the processes he goes through when he is confronted with various encounters from his world. In Figure 3 the professor and educational surroundings would represent the environment, and the ingredients of the bucket would be the encounter. The remainder of the model in Figure 3 would represent the student himself and his reaction to the encounters he is provided. Based on the picture, attempt to sort out the meaning of each of the following components:

A. Encounter

A) Describe the type of encounter the student is receiving.

____

B) Does the encounter represent a segment of reality-based curriculum?

C) Would there be a great deal of transfer from the type of environment the student experiences in school to what he will experience outside of school?

B. Intake

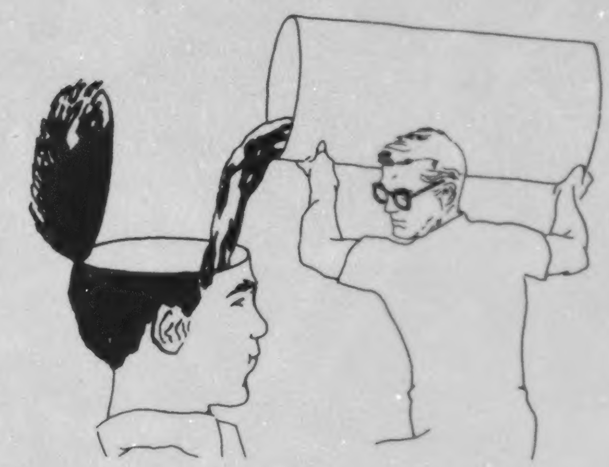
A) It is obvious that people's heads cannot be opened and knowledge poured into them. How do you imagine a student does take in the environmental encounters he has?

B) What physiological labels could be used instead of intake to suggest the same meaning?

C) How does one's past encounters influence the way present encounters are perceived?

D) If you were the professor in the picture, how would you improve the quantity and the quality of student intake?

Figure 3



C Storage

A) If the professor gave a multip storage operate to help the studen

B) What physiological label could b suggest the same meaning?

C) People are in part a product of had. How would a person's retriev perceived and how he behaved?

D Motivation

A) What kind of motivation is depict

B) Would motivation come from w forces outside of him?

C) How would student motivation h the degree of student activity?

E Action

A) If a person "learns by doing" how picture learning?

B) What relationship will exist betw activity, the number of encounte and the amount he has in storage?

F Control

A) In what ways is control central to t

B) What physiological label could

represent a segment of reality-based

reat deal of transfer from the type of
udent experiences in school to what he
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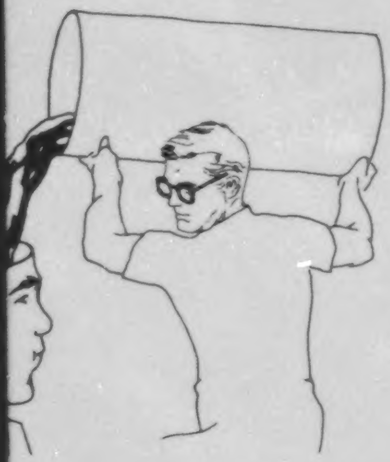

C Storage

A) If the professor gave a multiple choice test how would storage operate to help the student pass the test?

B) What physiological label could be used instead of storage to suggest the same meaning?

C) People are in part a product of the experiences they have had. How would a person's retrieval system influence what he perceived and how he behaved?

D Motivation

A) What kind of motivation is depicted in the picture?

B) Would motivation come from within the student or from forces outside of him?

C) How would student motivation be related to storage and to the degree of student activity?

E Action

A) If a person "learns by doing" how much is the student in the picture learning?

B) What relationship will exist between the degree of student activity, the number of encounters he has, his motivation, and the amount he has in storage?

F Control

A) In what ways is control central to the model?

B) What physiological label could replace control and still provide the same meaning?

____

C) The control function coordinates the entire thinking-learning model. Explain how control would coordinate the thinking-learning acting of an individual if he touched a hot stove.

____

____

____

The encounters the student in the picture receives are restricted to the contents of the bucket and to what the teacher conceives to be reality. The student takes in this "reality" using as few of the senses as necessary to achieve storage in his "memory banks." None of the new knowledge appears to build on the student's past experiences, his existing conceptual framework, or the unique way he views his world. The student's motivation to learn is external, based more on activity of the teacher than the student. Behavior is being modified and learning is taking place, but it's a disfunctional type of learning that distorts education and creates hate and resentment on the part of the student.

In the pages that follow each component of the Suchman model will be explored in depth. The task of formal education is to organize meaningful encounters through objectives into an instructional program. Sound educational planning is necessary for the teacher, for his role in the classroom is to mediate between the environment and what students encounter in school. The dilemma facing a good teacher is not the problem of what to include in the instructional program, but what to exclude given the time-constraints that exist. If students were allowed to run willy-nilly through their environment, their encounters would be maximized. Meaningful learning, however, cannot be measured in the number of encounters, but in the quality of the encounter, what the student brings to the encounter, and what the student does with the encounter once he has it.

Intake:

1) Searching
2) Selection
3) Grouping

In the earlier lesson dealing with the "Site Map and Contents,"

students encountered a simulated archae
of Bushman culture. In the space bel
experiences the students might have
encounter.

____

____

____

Would you expect the students to ha
paper the Site Map was written on, or th
Why would they focus on some of the st
answer is that perception depends on the
in the past. A trained meteorologist for ex
meaning out of a weather front and sea
stimuli differently than would a person w
training. In a like manner the students w
political household would view politics dif
weren't. If the Site Map exercise was su
with other cultures should be more me
involved in the experiences.

Storage (of organizers)

1) Encounters
2) Systems
3) Data
4) Inferences

Educational planning involves more t
for the purpose of instruction. Sound edu
the encounter with the organizers studen
classroom. Good teaching will build on stu
create encounters which will spark new
how that knowledge can be sustained an
teaching. The storage component of the
why perception is a function of what a p
theorists claim that all man's experienc
exists in equilibrium. When new informati
area, this equilibruim is shattered and
adjust to accomodate the new learning.

One of the reasons for sequencing
students with powerful organizers. A kno
selected names from the phone book wou

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____

coordinates the entire thinking-learning
ow control would coordinate the
ng of an individual if he touched a hot

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s in this "reality" using as few of the
storage in his "memory banks." None
pears to build on the student's past
ceptual framework, or the unique way
dent's motivation to learn is external,
e teacher than the student. Behavior is
is taking place, but it's a disfunctional
orts education and creates hate and
student.
each component of the Suchman model
task of formal education is to organize
ugh objectives into an instructional
planning is necessary for the teacher, for
mediate between the environment and
school. The dilemma facing a good
of what to include in the instructional
given the time-constraints that exist. If
willy-nilly through their environment,
ximized. Meaningful learning, however,
umber of encounters, but in the quality
udent brings to the encounter, and what
ounter once he has it.

ing with the "Site Map and Contents."

students encountered a simulated archaeological dig and the remains of Bushman culture. In the space below describe the kinds of experiences the students might have brought to bear on that encounter.

____

____

____

Would you expect the students to have noticed the color of the paper the Site Map was written on, or the size of the margins used? Why would they focus on some of the stimuli and not others? The answer is that perception depends on the experiences you have had in the past. A trained meteorologist for example, will get much more meaning out of a weather front and search, select, and group the stimuli differently than would a person without his background and training. In a like manner the students who were raised in a highly political household would view politics differently than students who weren't. If the Site Map exercise was successful, future encounters with other cultures should be more meaningful for the students involved in the experiences.

Storage (of organizers)

1) Encounters
2) Systems
3) Data
4) Inferences

Educational planning involves more than organizing encounters for the purpose of instruction. Sound educational planning matches the encounter with the organizers students bring with them to the classroom. Good teaching will build on students' entering knowledge, create encounters which will spark new knowledge, and anticipate how that knowledge can be sustained and extended through future teaching. The storage component of the Suchman model explains why perception is a function of what a person already knows. Field theorists claim that all man's experience is recorded, and that it exists in equilibrium. When new information is taken into the storage area, this equilibruim is shattered and all past experiences must adjust to accomodate the new learning.

One of the reasons for sequencing instruction is to provide students with powerful organizers. A knowledge of twenty randomly selected names from the phone book would have little potential for generating new meaning for a student. In a similar manner the content from the professor's bucket would have little regenerative potential for the student in the picture.

oFrom the site map exercise, how might the concepts "environment," "technology," "adaptation," and "evolution" aid the students in their future course work?

oHow might the value systems they held before the lesson be changed as a result of the lesson?

oHow might the process of raising questions, making hypotheses, and testing for truth influence the students' view of their world and their ability to function in it?

If a student is able to store and use the tools of inquiry, he will be able to search, select, and group his classroom encounters so that he can make inferences and develop his own concepts, and from them generalizations, processes, systems, theories, and laws. If this is done that student will enter on a growth cycle that will continue throughout the individual's lifetime.

Motivation

1) Visceral
2) Social-Ego
3) Cognitive
    a) closure
    b) curiosity
    c) power

The highest level of motivation comes from a person's ongoing evaluation of himself. People will be motivated if what they do

enhances the image they have of thems
writes a curriculum handbook because wr
academic life, but at the same time, is per
the dozens of other things he could
curriculum handbooks because reading
valuable (at least for the moment) than
that could be made of the teacher's time.
self-evaluation as well, but many times th
different than the things valued by teacher

Suchman's model provides insight int
the vocabulary Suchman uses. suggest the
in the following terms:

1) Visceral ______

2) Social Ego ______

3) Cognitive ______
    a) Closure ______
    b) Curiosity ______
    c) Power ______

Label each of the examples which foll
definition of motivation:

______ 1) A soldier is out on patrol, an
fire, he dives behind a tree.
______ 2) A student looks out his wind
has all turned red. He wonders
______ 3) Another student looks out the
the grass is green.
______ 4) A college student rewrites a
professor may be on his gradua
______ 5) A debate student knows his
afternoon in the library in pr
following day.

Based on your knowledge of Suchman
of motivation that is implied in the trash c

How would you label the type of m

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ivation comes from a person's ongoing e will be motivated if what they do

enhances the image they have of themselves. A college professor writes a curriculum handbook because writing is not only valued in academic life, but at the same time, is personally more valuable than the dozens of other things he could be doing. Teachers read curriculum handbooks because reading the handbook is more valuable (at least for the moment) than the many alternative uses that could be made of the teacher's time. Students are motivated by self-evaluation as well, but many times the things they value are very different than the things valued by teachers or college professors.

Suchman's model provides insight into human motivation. From the vocabulary Suchman uses, suggest the type of motivation implied in the following terms:

1) Visceral ____________________

2) Social Ego ____________________

3) Cognitive ____________________
   a) Closure ____________________
   b) Curiosity ____________________
   c) Power ____________________

Label each of the examples which follow according to Suchman's definition of motivation:

_____ 1) A soldier is out on patrol, and, when the enemy opens fire, he dives behind a tree.

_____ 2) A student looks out his window and sees that the grass has all turned red. He wonders why.

_____ 3) Another student looks out the window and wonders why the grass is green.

_____ 4) A college student rewrites an assignment because the professor may be on his graduate committee.

_____ 5) A debate student knows his topic but spends an extra afternoon in the library in preparation for a debate the following day.

Based on your knowledge of Suchman's model, suggest the type of motivation that is implied in the trash can picture:

____

How would you label the type of motivation in the site map exercise?

Do you feel there is a suggested hierarchy of motivation in the Suchman Model?

What type of motivation would best promote inquiry in the classroom?

Action

1) To explore environment (generating new intake)
2) To control environment

In the elementary school, play should be a vital part of the school curriculum. A child begins exploring his environment at birth and continues exploring the rest of his lifetime. A stimuli-rich classroom environment which allows movement, talking, and manipulation will promote more learning than a classroom environment that doesn't.

oHow would the degree of activity students engaged in during the site-map exercise aid the learning that took place?

oHow would you compare the degree of student activity in the trash can picture with the activity in the site-map exercise?

Control

1) Regulating intake
2) Coding, storing, and retrieving
3) Investigating action

People have very complex control systems which operate to coordinate their desires, knowledge and experiences and what they perceive in their environment. Control acts as a thermostat to

mediate between the environment and the
to survive in the environment.

The Site Map Act
the Suchman

The Site Map Activity provides a u
discuss the Suchman Model. The site ma
direct encounter with a cultural system t
your own. Your past experiences with
withstanding, helped you develop questi
and contents.

You were already familiar with c
technology, adaption, and evolution. Th
organizing idea that placed these con
relational framework. You had an organi
going into the activity, and it played an i
perceived, your degree of interaction, and
learned from the activity materials. Beca
questions, make and test hypotheses, and
learning experience was personal; yet it s
sense of control over and mastery over
social understandings.

Although it is dangerous to draw ana
system represented by the Suchman Mo
like instruction, one might be drawn betw
the human system and inquiry as the
instruction. In the Suchman Model, cont
system that predisposes the organism to d
its survival. It is the nervous system that
environment and triggers the operation
Inquiry would serve a similar functio
predisposes the social system to do all th
survival. In instruction inquiry could be i
that it also triggers the processes and sub
for society to survive and prosper.

Application

In the experience section of this ch
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nt. Control acts as a thermostat to mediate between the environment and the bodily processes necessary to survive in the environment.

The Site Map Activity and the Suchman Model

The Site Map Activity provides a useful context in which to discuss the Suchman Model. The site map and transcript provided a direct encounter with a cultural system that was very different than your own. Your past experiences with cultures, your own not withstanding, helped you develop questions to ask of the site map and contents.

You were already familiar with concepts like environment, technology, adaption, and evolution. The Cultural Pyramid was an organizing idea that placed these concepts into some sort of relational framework. You had an organizing structure of your own going into the activity, and it played an important part in what you perceived, your degree of interaction, and finally on the amount you learned from the activity materials. Because you were free to raise questions, make and test hypotheses, and use value judgements, the learning experience was personal; yet it should also have given you a sense of control over and mastery over some fairly sophisticated social understandings.

Although it is dangerous to draw analogies between an internal system represented by the Suchman Model and an external system like instruction, one might be drawn between control as the center of the human system and inquiry as the center of the process of instruction. In the Suchman Model, control is an internal biological system that predisposes the organism to do whatever is necessary for its survival. It is the nervous system that plugs the organism into its environment and triggers the operation of life support processes. Inquiry would serve a similar function in instruction. Inquiry predisposes the social system to do all that is necessary to insure its survival. In instruction inquiry could be internalized to such a degree that it also triggers the processes and subsequent learning necessary for society to survive and prosper.

Application

In the experience section of this chapter you viewed inquiry from the front of the room or from the perspective of a teacher planning an inquiry lesson. In the application section of this chapter you will view inquiry from the back of the room. Your energies in the *Application* "A" will concentrate on a model lesson and the type of thinking-learning -acting that it produces. In *Application* "B" you will be asked to apply the Suchman model of inquiry to selected learning activities in your own unit.

Application "A"

Rationale: The man-land relationship is an important perspective for an individual in society. Students should realize that cultural uniqueness is determined to a great extent by the geographic environment of which man is a part.

Focus: The teacher will use the technique of comparison and contrast between pre-industrial and post-industrial cultures to demonstrate the impact of environment on culture. The materials will indicate that technology is one of the ways man can insure his survival. The student will understand technology as one of many tools that help man survive in his hostile environment.

Informational Objectives:

1. At the conclusion of the activity, the student should be better able to discuss the relationship between the environment and technology and be able to apply the following concepts in a meaningful context: tools, resources, cultural adaptation, structure and function.
2. At the conclusion of the activity the student should have enough background in the advantages and disadvantages of technology to critically analyze opinions representing only one side of the issue. In the analysis the students will use skills reflecting the rules of logic and the discovery of unstated assumptions and unwarranted conclusions.
3. At the conclusion of the activity the student will demonstrate an empathy for a culture different than their own by judging a culture by its own standards, rather than the standards of the students and by recognizing that culture, no matter how different, is what makes man human.

Teaching Strategy

The teaching strategy will consist primarily of the discrepant data

approach. The stereotype is that "civil
tools. The reinforcement step of the mo
the students make in class. The discrep
superior sled the Eskimo makes. A more
culture and man should emerge from th
the lesson.

Instructional Sequence

In the initial exercise students will b
representing each of the physical resour
Eskimo sled.[7] The pictures will portray
antlers, moss thongs, and a tent skin. St
groups and asked to construct a sled
pictures. They will illustrate the sled desig
finished product to the class. The meth
discrepant data, for after all the student
be shown the film, "Autumn River Ca
Course of Study or a picture of how
designed.

Concepts and Generalizations

The concepts introduced in the initia
resources, technology, and adaptation. T
make will be elicited by the following disc

o If you were to grade your sleds o
what would each group receive?
o Why was the Eskimo able to ma
were?
o How is the Eskimo sled a produ
what value might an Eskimo place
o What human resources went into s
o How might the physical resources
other ways?
o If the Eskimo flunked "Sled Maki
take the course again?

Students are divided into groups and
hanger. Each member of the group is as
tools as possible from the hanger and to
will serve.

In the application section of this chapter
n the back of the room. Your energies in
oncentrate on a model lesson and the type
that it produces. In *Application* "B" you
e Suchman model of inquiry to selected
wn unit.

"A"

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students and by recognizing that culture,
rent, is what makes man human.

ll consist primarily of the discrepant data

approach. The stereotype is that "civilized" man makes the best tools. The reinforcement step of the model will consist of the sleds the students make in class. The discrepant data will be the much superior sled the Eskimo makes. A more realistic view of technology, culture and man should emerge from the discussion that concludes the lesson.

Instructional Sequence

In the initial exercise students will be given a set of six pictures representing each of the physical resources that go into making an Eskimo sled.[7] The pictures will portray six large fish, several sets of antlers, moss thongs, and a tent skin. Students will be broken into groups and asked to construct a sled from the materials in the pictures. They will illustrate the sled design on paper and present the finished product to the class. The methodology of the exercise is discrepant data, for after all the student sleds are built, the class will be shown the film, "Autumn River Camp. Part II" from *Man: A Course of Study* or a picture of how an Eskimo sled is actually designed.

Concepts and Generalizations

The concepts introduced in the initial exercise are environment, resources, technology, and adaptation. The generalizations students make will be elicited by the following discussion questions:

- o If you were to grade your sleds on a scale from "A" to "F" what would each group receive?
- o Why was the Eskimo able to make a better sled than you were?
- o How is the Eskimo sled a product of the environment, and what value might an Eskimo place on it?
- o What human resources went into sled-making?
- o How might the physical resources used in the sled be used in other ways?
- o If the Eskimo flunked "Sled Making I" would he be able to take the course again?

Students are divided into groups and provided with a metal coat hanger. Each member of the group is asked to construct as many tools as possible from the hanger and to list the functions that tool will serve.

How would you grade the tools you constructed?
How are the tools you constructed a reflection of your own environment?
How did you learn to make these tools?
From the list of functions the tools serve, what can you say about your own values?

Directions: Use the Suchman Model to analyze the inquiry that might take place in the sled-building lesson.

Suchman Model

- o **Encounters**
- o **Intake**
- o **Storage**
- o **Motivation**
- o **Action**
- o **Control**

The Prototype Application
An Analysis of the Inquiry Environment

Encounters

The encounter to be analyzed will be from the first activity of the prototype unit. In that activity students encounter data in the form of six pictures from which they will construct their own Eskimo sled. They are free to manipulate the data in any way they want and are encouraged to interact with the data and each other as a part of the total learning environment.

Intake

How they perceive the data will be d
factors. The purpose of the lesson will inf
as they sort through the data. If they
Eskimo dinner the search pattern woul
students' past experience with Eskimo li
they have seen or used before will largely
the sleds selected by the students. The w
components of the sled together into a
determined by the functions the sled is t
direction given the students as they inter
design of their final sleds is quite predicta
conditioning of their background.

Storage

The conditioning associated with t
background must be considered in lesson p
encountered Eskimo sleds before on T.V
actual structure of the Eskimo sled will be
students have experienced in their ow
physical components the Eskimo uses are
the data, the systems used to combine the
of the student's cultural conditionings. A
be ingenious in the inferences they draw fr
experience with the physical propertie
combination of moss, ice, and frozen fish
highly usable runner for a sled.

Motivation

The sled-building activity should i
motivation. Social ego motivation will con
grades or from wanting to build a better sl
class. An intrinsic motivation would be cu
sleds are built and a desire for closure comi
utilization of factors in producing the sled.

Action

During the exercise students will be a
drawing diagrams, making group presenta
They have the opportunity to act on the
but are also able to generate new data as the

tools you constructed?
constructed a reflection of your own

e these tools?
ns the tools serve, what can you say

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uilding lesson.

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he Inquiry Environment

yzed will be from the first activity of
ctivity students encounter data in the
which they will construct their own
manipulate the data in any way they
teract with the data and each other as
ironment.

Intake

How they perceive the data will be determined by a number of factors. The purpose of the lesson will influence the student's search as they sort through the data. If they were asked to prepare an Eskimo dinner the search pattern would be very different. The students' past experience with Eskimo life and the variety of sleds they have seen or used before will largely determine the structure of the sleds selected by the students. The way the students group the components of the sled together into a total design will be largely determined by the functions the sled is to serve. There is very little direction given the students as they interact with the data, but the design of their final sleds is quite predictable because of the cultural conditioning of their background.

Storage

The conditioning associated with the students' experiential background must be considered in lesson planning. The students have encountered Eskimo sleds before on T.V. and in movies, but the actual structure of the Eskimo sled will be associated with the type students have experienced in their own culture. Although the physical components the Eskimo uses are different as indicated in the data, the systems used to combine the elements will be the result of the student's cultural conditionings. Although the students may be ingenious in the inferences they draw from the data, they have no experience with the physical properties of moss or how the combination of moss, ice, and frozen fish can be used to construct a highly usable runner for a sled.

Motivation

The sled-building activity should involve several types of motivation. Social ego motivation will come from the possibility of grades or from wanting to build a better sled than anyone else in the class. An intrinsic motivation would be curiosity about how Eskimo sleds are built and a desire for closure coming out of the best possible utilization of factors in producing the sled.

Action

During the exercise students will be active in group discussion, drawing diagrams, making group presentations, and viewing films. They have the opportunity to act on the data provided in the unit, but are also able to generate new data as the unit goes along.

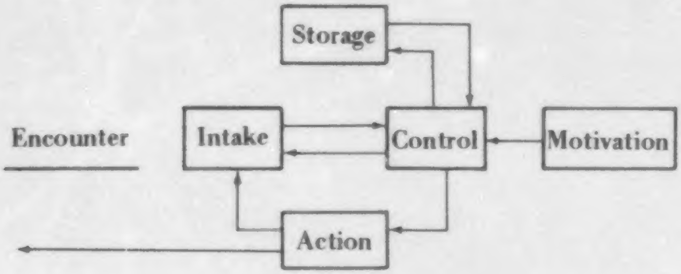
Application "B"

Directions: Develop an inquiry lesson consistent with the objectives established in Chapter I. Use the model to assess the lesson before utilizing it.

Figure 4

Suchman Model

Learning-Thinking-Acting



Notes

1 "History as Culture Change: An Overview" [Curriculum package], Anthropology Curriculum Study Project (Washington, D.C.: American Anthropological Association, 1968). Copyright by, and reprinted by permission of, the American Anthropological Association.

2 Based on "The Bushman of the Kalahari Desert," *History as Culture Change,* Anthropology Curriculum Study Project (Washington, D.C.: American Anthropological Association, 1968).

3 "History as Culture Change: An Overview" [Teaching plan], Anthropology Curriculum Study Project (Washington, D.C.: American Anthropological Association, 1968), pp. 1, 5, 17.

Copyright by, and reprinted by per
Anthropological Association.

4 *Ibid.* The suggested procedures
possible as they were presented in
questioning sequence has been extracte
background notes and was not provided i
here.

5 This resource is in a book of stude
the course. It was written by Margare
Elizabeth Marshall Thomas, *The Harmles*
A. Knopf, Inc., 1959). Other suggested r
and Stuart Piggot, *Prehistoric Societie*
Francis Clark Howell and the editors of
1965).

6 J. Richard Suchman, "A Mod
Education: Inquiry Workshop Series,"
(September 1966-June 1967). The mo
October 1966 issue, p. 29. Adapted for u
author, J. Richard Suchman, Hu
Organization, Monterey, California.

7 Based on "Men and Women Prepa
Eskimos at the Inland Camps, Man: A C
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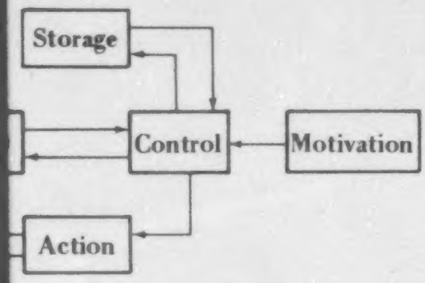
Figure 4

chman Model

ng-Thinking-Acting



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Copyright by, and reprinted by permission of, the American Anthropological Association.

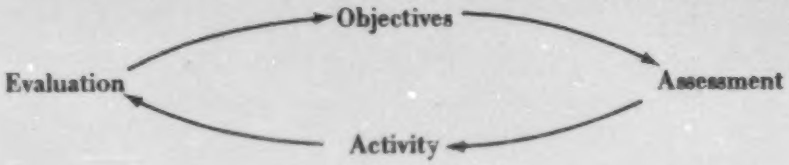
4 *Ibid.* The suggested procedures are reprinted as nearly as possible as they were presented in the teacher's guide. The questioning sequence has been extracted from the various teacher background notes and was not provided in the same format as shown here.

5 This resource is in a book of student readings that accompany the course. It was written by Margaret C. Fallers and based on Elizabeth Marshall Thomas, *The Harmless People* (New York: Alfred A. Knopf, Inc., 1959). Other suggested readings are: Grahame Clark and Stuart Piggot, *Prehistoric Societies* (New York, 1965) and Francis Clark Howell and the editors of *Life, Early Man* (New York, 1965).

6 J. Richard Suchman, "A Model for the Languages of Education: Inquiry Workshop Series," *The Instructor,* LXXVI (September 1966-June 1967). The model can be found in the October 1966 issue, p. 29. Adapted for use here by permission of the author, J. Richard Suchman, Human Resources Research Organization, Monterey, California.

7 Based on "Men and Women Prepare for Winter," *The Netsilik Eskimos at the Inland Camps, Man: A Course of Study* (Cambridge, Massachusetts, 1968), pp. 80-88.

Chapter V
Simulation



The present chapter will take up the question, "Can instruction simulate reality?" The answer to the question will explore yet another instructional alternative and suggest that simulation can be a highly successful and powerful teaching technique. The chapter will look at what simulation is, explore its various types, and indicate how it can be used. **The major thrust of the chapter will be to provide the background experience and theoretical models for use in constructing teacher made games.** If teachers can construct games of their own, simulation can be a flexible tool for improving instruction.

It is one thing to pay lip service to the ideals of inquiry, but it is another thing to implement inquiry in the classroom. Simulation provides a useful introduction to inquiry teaching, for it allows the teacher to establish an open classroom environment; yet, at the same time, to maintain the rules and constraints of a laboratory type of exercise. **Chapter** V continues the focus on instructional procedures which began in **Chapter II**, but reintroduces the need for the type of planning suggested in **Chapter I.** Simulation has its own unique content and methodology, but its use should be subordinate to the teacher's objectives. All too often simulations are misused much like the Friday afternoon "educational film." If simulation is not taken seriously, it can be a colossal waste of valuable teacher and student time.

Experience

The simulation format is self explaining so complete the game as best you can. The lesson has been adapted from a game called "Escalation" developed by Wilms and Steinbrink.[1]

A Simulation Task

Directions: Read the brief Scenario which follows and transfer the information onto the map with some type of color coding or system of classification. This should be done in order that each country can be quickly recognized and its action followed from one situation to the next. Complete the directions as they occur through the remainder of the game and explain your actions as Prime Minister in the State of the Nation address.

Scenario

The four countries E,F,G,H, are neutral, and although they occupy strategic locations, they try to stay out of the continuing conflict between Homeland and her enemies. Homeland has four allies in the conflict and they are the contiguous countries W and Z in the south and X and Y in the north. Although W and Z are historical allies, the countries X and Y are most threatened by Homeland's enemies.

Role Card
Prime Minister of Homeland

You are the Prime Minister of Homeland, a country made up of several hundred million people, most of whom engage in subsistence farming. The map which follows shows that you are surrounded by enemy countries. The countries A,B,C, and D are enemies with large navies and powerful air forces. Homeland, although it has a large army, cannot match its enemies in the sea or air so the presence of countries A, B, C, and D are a direct threat to your nation's security.

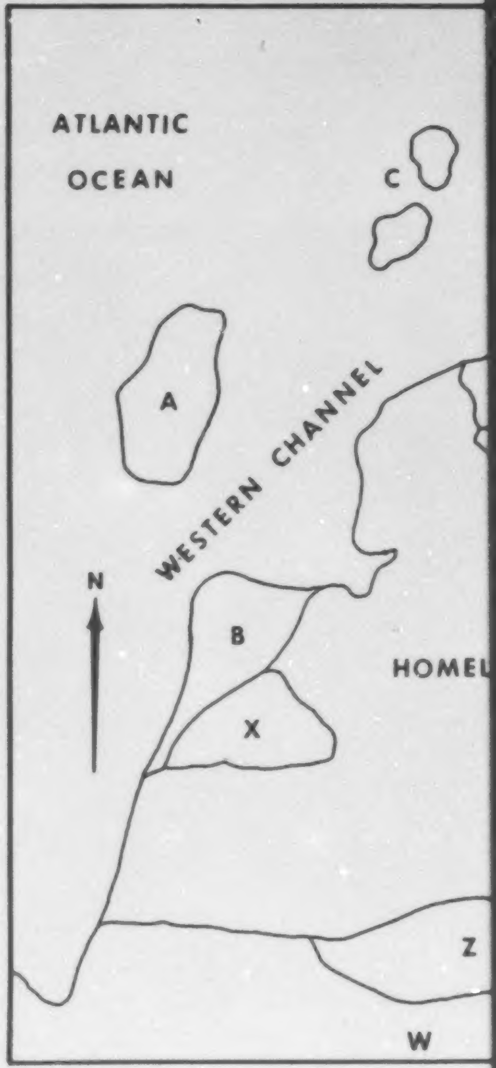
As Prime Minister you are to react to the changing political and military climate in your part of the world by writing your political decision after each of the following crisis situations: (Fill in the corresponding blanks on the following page after each situation. Complete your decision for one situation before moving on to the next one.)

Situation 1. Word has just come down from reliable intelligence sources that countries B and C are sending military advisors to aid the established government of D in an expanding civil war.

Situation 2. Next, you receive a delegation from your country's ally Y asking advice on a plan which would aid the revolutionary forces in D in order to overthrow the existing government and establish a new government which is friendly to Homeland.

Situation 3. In stage three of "Escalation" top secret reports indicate that Y is sending military aid to the revolutionary forces in D.

Situation 4. In the final phase of "Escalation," country D reacts to the military intervention of Y into her internal affairs by bombing Y. Although Homeland is not being directly attacked, there is hysteria in Homeland over the casualties and destruction that Y is suffering.



Homeland and Its N

Situation 1. What is your decision with regard to t

of classification. This should be done in
ountry can be quickly recognized and its
m one situation to the next. Complete the
occur through the remainder of the game
actions as Prime Minister in the State of

Scenario

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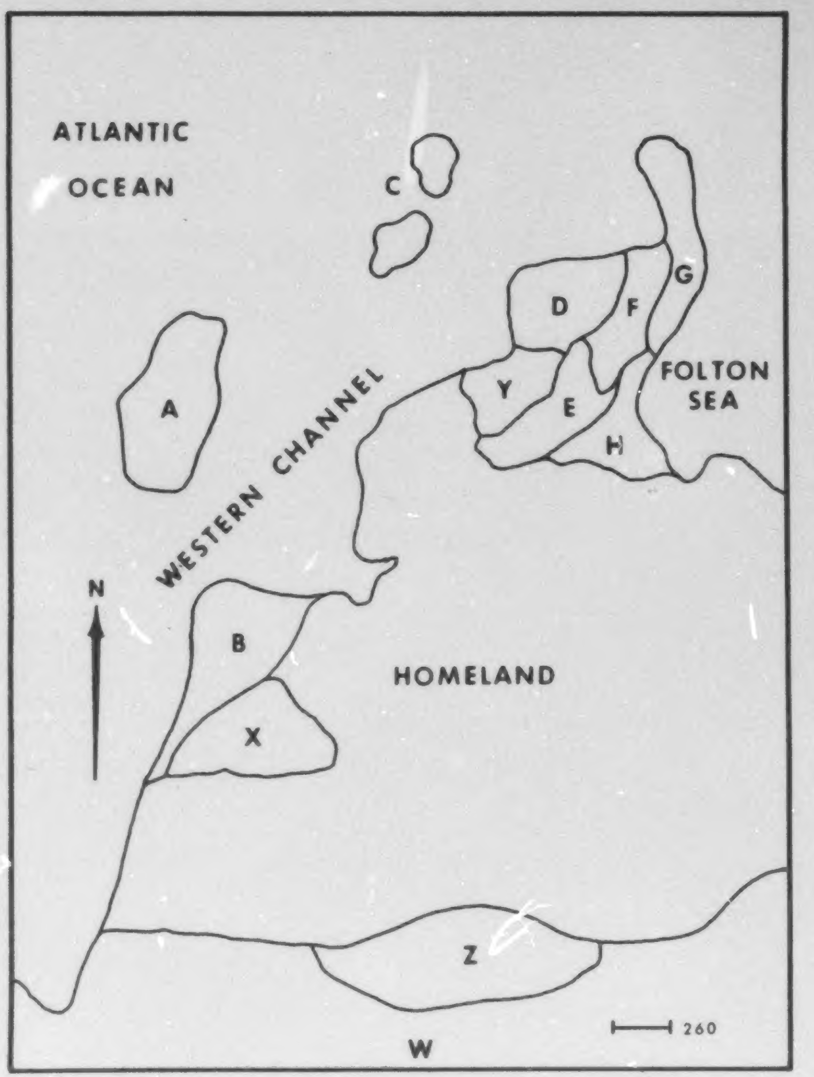
nd's enemies.

Role Card
Minister of Homeland

ter of Homeland, a country made up of several
st of whom engage in subsistence farming. The
hat you are surrounded by enemy countries.
are enemies with large navies and powerful air
it has a large army, cannot match its enemies
ence of countries A, B, C, and D are a direct
ity.
are to react to the changing political and
art of the world by writing your political
e following crisis situations: (Fill in the
following page after each situation. Complete
on before moving on to the next one.)
come down from reliable intelligence sources
are sending military advisors to aid the
f D in an expanding civil war.
ive a delegation from your country's ally Y
which would aid the revolutionary forces in D
he existing government and establish a new
dly to Homeland.
f "Escalation" top secret reports indicate that
to the revolutionary forces in D.
ase of "Escalation," country D reacts to the
Y into her internal affairs by bombing Y.
ot being directly attacked, there is hysteria in
ties and destruction that Y is suffering.



Homeland and Its Neighbors

Situation 1. What is your decision with regard to the intervention?

Situation 2. What is your advice?

Situation 3. What action should Homeland take?

Situation 4. What action should Homeland take?

STATE OF THE NATION
Address

My Fellow Countrymen,

I am reporting to you my justification for the political and military decisions I have made. As Prime Minister, I

Reverse the Map (upside down) and see if y
that were actually involved in the crisis situation
China and the other countries are: A(Japan),
Phillipines), D(South Vietnam), E(Laos), F(
H(Thailand), W(USSR), X(North Korea), Y(Nort

Debriefing is an important component of si
carried out if students are to gain full benefit fro
The debriefing which follows will concrentrate
understandings of the activity. The question
Debriefing of the Game are similar to the ones yo
you used the game in a classroom. The qu
Debriefing the Methodology will be unique to
underlying simulation.

Debriefing the Game

1. What factors influenced your decision-making

2. How would you describe the strategy behind
made?

3. If you knew that country Y was actually Nor
if any, would you change the policy decision

4. Why would the decision stay the same or be di

5. What does the concept "cultural conditioning
this activity?

6. What importance might the concept "cultur
explaining international geo-politics:

omeland take?

omeland take?

F THE NATION
Address

stification for the political and military
inister, I

Reverse the Map (upside down) and see if you can label the countries that were actually involved in the crisis situations. Homeland is mainland China and the other countries are: A(Japan), B(South Korea), C(The Phillipines), D(South Vietnam), E(Laos), F(Cambodia), G(Malaysia), H(Thailand), W(USSR), X(North Korea), Y(North Vietnam), X(Mongolia).

Debriefing is an important component of simulation, and it must be carried out if students are to gain full benefit from any simulation activity. The debriefing which follows will concerntrate first on the geographic understandings of the activity. The questions which make up the *Debriefing of the Game* are similar to the ones you might ask of students if you used the game in a classroom. The questions which make up *Debriefing the Methodology* will be unique to the educational theory underlying simulation.

Debriefing the Game

1. What factors influenced your decision-making throughout the game?

2. How would you describe the strategy behind the policy decisions you made?

3. If you knew that country Y was actually North Vietnam, in what way, if any, would you change the policy decisions you made in the game?

4. Why would the decision stay the same or be different?

5. What does the concept "cultural conditioning" mean in the context of this activity?

6. What importance might the concept "cultural conditioning" have in explaining international geo-politics:

It would be difficult to isolate many of the factors influencing students as they proceed through an activity like this. Nationalism would be a dominant factor, particularly if students attribute to Homeland the same type of allegiance they have for America. Concepts like aggression and territoriality might also influence, and in turn explain, the behavior of students as they move from one stage of "Escalation" to the other. The map reversal and the identification of the belligerents involved would seriously alter the complexion of the international struggle. Students may or may not want to change their decisions, but the point of the lesson is made. The game illustrates the concept "cultural conditioning" and demonstrates how pervasively this concept can effect international geo-politics.

Debriefing the Methodology

1. How does simulation differ from other learning activities used in *Perspectives?*
2. How would students get into a simulation activity?
3. How would student choice operate in simulation? What limitations would be placed on that choice?
4. How instrumental are student choices in the outcomes of a simulation?
5. What motivates students and promotes task-oriented behavior throughout a simulation?

Reflections on the Simulation Experience

Simulation is more than a methodological technique, for it provides within it a framework for dealing with abstract concepts and intangible social phenomena. Simulation is based on a theoretical problem solving orientation that requires the developer to select, delineate and come to terms with the important variables of a problem situation. Role playing allows participants to get into the game although the factors treated in the game and its environmental model sets the parameters within which the roles are played. Choice is a vital part of simulation, but, as in life, the range of choice is limited. Behavior in a simulation will not be random, for every choice must be inexorably tied to a simulated outcome. Simulation can be fun as well as educational, for it presents alternatives, requires decisions, and provides the feedback th
responsible for the choices he makes.

Analysis

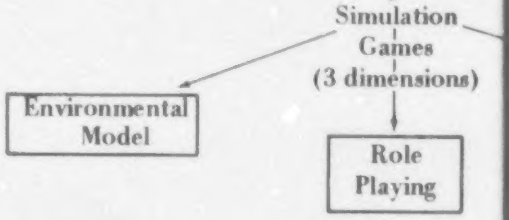
The game of "Escalation" demonstrate
like cultural conditioning could be treated
problem of geo-political behavior. Throug
the reality underlying geo-political behavi
legitimate classroom focus and then be
objectives. The instructional procedures e
would make the classroom into a laborato
of parameters could be established which
teacher and the student to isolate and dea
variables of the problem. As the teacher m
phases of the simulation he could evaluate
of the objectives he established for the ga
based on this evaluation feedback. In ord
viable instructional alternative and a
handling problem solving in the classroom
treat the following four questions:

A. What is simulation?
B. What types of simulation are there
C. How do you build a simulation?
D. How do you use simulation?

A. What is Simula

Many people have written about simula
workable definitions is embodied in the
Stadsklev (Figure 1).[2]

Figure 1



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Analysis

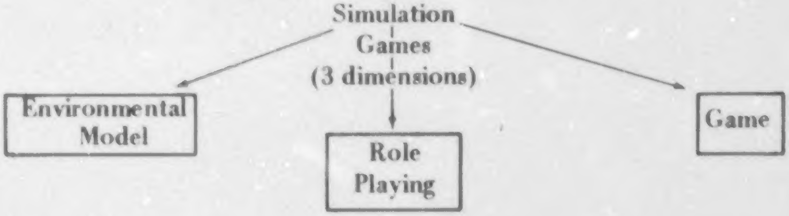
The game of "Escalation" demonstrated how an abstract concept like cultural conditioning could be treated as it relates to the broader problem of geo-political behavior. Through the simulation format the reality underlying geo-political behavior could be selected as a legitimate classroom focus and then be set down in instructional objectives. The instructional procedures embodied in "Escalation" would make the classroom into a laboratory where a manageable set of parameters could be established which in turn would allow the teacher and the student to isolate and deal with the most important variables of the problem. As the teacher moved through the various phases of the simulation he could evaluate student behavior in light of the objectives he established for the game and debrief the game based on this evaluation feedback. In order to make simulation a viable instructional alternative and a workable procedure for handling problem solving in the classroom, the analysis section will treat the following four questions:

A. What is simulation?
B. What types of simulation are there?
C. How do you build a simulation?
D. How do you use simulation?

A. What is Simulation?

Many people have written about simulation, but one of the most workable definitions is embodied in the diagram developed by Stadsklev (Figure 1).[2]

Figure 1



A simulation game will have each of the components outlined in Figure 1. A game, according to Stadsklev, is "any contest (play) among adversaries (players) operating under constraints (rules) for an objective (winning). A Spelling "B" would constitute an instructional game, but it wouldn't be a simulation game because it lacks the two other components of role playing and environmental models. Role playing places students in a variety of choice making situations and it allows them to become someone else. The environmental model grows out of the social system that is chosen for study, and it is built into the simulation. The environmental model constitutes the interrelated factors of the simulated social system which determine cause and effect relationships. The environmental model makes students responsible for their behavior because it ties the choices they make to the actual simulated outcome. Simulation allows a teacher to structure a type of inquiry in the classroom situation which maximizes freedom of choice, but minimizes the danger of letting the learning situation "get out of hand." Simulation promotes, as well, a multi-disciplinary approach to social studies instruction and re-integrates the separate disciplines into a systematic and meaningful whole. Simulation will allow the teacher to "test the water" of classroom inquiry required by many of the new social studies materials.

Simulation is no panacea for the ills of education, but it does offer an alternative approach to effective learning in the social studies area. Simulation can be an effective learning technique because it accounts for the vital area of student interest and motivation. A properly designed simulation will totally involve students in a decision making learning activity. This involvement will tap the student's existing experiences and provide a forum through which individual or group action can be taken. Role playing will allow students to vicariously experience the dilemmas faced by real decision makers. Students will experience the scope and nature of problems in a format that reduces the complexity of the problem so that it can be dealt with in the classroom. The simplifying format isolates the important problem variables so that students have clear alternatives and some notion of the variety of consequences involved. In the final analysis, students can test their solution in light of simulated consequences and use this experience as a basis for class discussion. As far as the teacher is concerned, simulation will allow for the treatment of both the logical and psychological aspects of a problem. Students will gain insight and understanding, but they will

also gain empathy for the people responsi
problem solution. Simulation will also pr
science theory in the classroom and a w
human behavior a manageable and interest

B. What Types o
Simulation Are T

As a general rule, simulation games
broad categories. Some simulations are
variables in the game are prescribed by t
outcomes are largely predetermined. Ot
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nature of "Baldicer," "The Game of
close-ended simulation activity.

1. Open-Ended Simula

Baldicer, which is an acronym for Bal
game in which the participants are to
Coordinator for the 150 million people th
of the game is to experience the interdep
economy and to come to terms with wh
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"The Game in Play" (Baldicer

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also gain empathy for the people responsible for decision making and problem solution. Simulation will also provide a way of testing social science theory in the classroom and a way of making the study of human behavior a manageable and interesting goal.

B. What Types of Simulation Are There?

As a general rule, simulation games can be classified into two broad categories. Some simulations are closed ended where the variables in the game are prescribed by the game structure and the outcomes are largely predetermined. Other games are open-ended with loosely structured variables where a variety of possible outcomes can be expected. You will be involved with examples of both types of simulation activity in the pages which follow. The first experience will be with "Baldicer," an open-ended simulation game, described as it might operate in a hypothetical classroom. In the second example, you will actually participate in a segment of "The Game of Farming" from the *Manufacturing and Agriculture Unit* of the High School Geography Project. In contrast to the open-ended nature of "Baldicer," "The Game of Farming" will represent a close-ended simulation activity.

1. Open-Ended Simulation

Baldicer, which is an acronym for Balanced Diet Certificates, is a game in which the participants are to assume the role of Food Coordinator for the 150 million people they represent. The objective of the game is to experience the interdependent nature of the world economy and to come to terms with what is meant by population explosion, unequal distribution of resources and technology, inflation, and competing styles of economic organization. In the area of values the participants will raise the ethical question that must be faced in a world divided between "have" and "have not" nations.

"The Game in Play" (Baldicer)[3]

The text and dialogue which follows will provide a teacher who has never played a simulation game an understanding of how a game looks in play. It will demonstrate the type of interaction and learning potential that is inherent in a simulation approach to the social studies.

This was to be Carol's first experience with simulation. When her high school seminar group entered the classroom the desks were randomly arranged and on each of them were a copy of the Participants Instructions, a work Yield Inventory slate, a tally sheet and a toothpick. A brief introduction explained the presence of the Work Yield Inventory slate and the toothpick. The slate was similiar in structure to the type Carol had used as a child, but its function in the game was quite different. The directions were to take the toothpick, and, as quickly as possible, write the four words: dig, sweat, push, and pull. Although this did not make sense at the time, Carol was relieved that the task didn't require any high level technical or academic skill. The participant instructions explained the tally sheet and the five phases of the game.

o *Phase I* consisted of the work period of 40 seconds where the participants scribbled dig, sweat, push, and pull as many times as possible on the WYI slates.

o *Phase II* consisted of walking up to the directors table and drawing a Natural/Social Forces card much like the Treasure Chest cards in the game of "Monopoly."

o *Phase III* consisted of the tally period, and though the sheet itself looked complicated, the game director assured the class that specific step by step instructions would be provided in filling it out.

o *Phase IV* was the planning period where negotiations would be carried out among the participants for food machines which appeared to greatly increase the food supply. A regular "food machine" could increase food production output (baldicers) by a multiple of five, but at an initial investment cost of 50 baldicers. A "super food machine" would increase the output by a multiple of 50, but at an almost incredible investment cost of 400 baldicers.

o *Phase V* ended the round (a year's period of time) with a purchasing period where any transactions for food machines would be recorded by the game director. The tally sheet Carol used is located on page so follow her progress through the game.

The director began the play by announcing, "The number of baldicers with which you begin is written in paragraph five. Do not reveal it to other players unless you feel it is advantageous to do so."

Carol located paragraph five and it revealed that she had 35 baldicers to start the game. She did not know whether the 35 baldicers recorded on her instruction pamphlet was good or bad.

The game director continued, "Pick up your WYI slate and toothpick and complete each line with all four words. This is the work period where you will earn one baldicer for each line you complete in the 40 seconds. Ready? Begin."

Silent, hurried writing.

After 40 seconds the director shouted, "Stop."

Twenty sighs were heard and a low c
eighth line."

Over the confusion the director announ
number of lines you completed at the botto
Natural/Social Forces drawing. Everyone
Director's table, take a card, read it, and retu

Another buzz, and a moan: "A drought!

The instructions continued, "OK. Time
your name on the top, and begin with roun
score from your WYI slate to line 1."

Carol wrote 8 in the space and waited.

The director continued, "This round the
increased population is 1 baldicer. Enter 1 in

Carol entered the +1, added it to the ex
9 in line three.

"Now enter the food machine factor i
machine this time, so enter 1. Now multiply
five."

Carol placed the food machine factor o
product 9 in line five.

"Now," the director continued, "e
Natural/Social Forces card in line 6. Either
answer in line 7."

Carol entered a +6 for oil discovered, add
placed 15 in line 7.

"In line 8 enter the percentage of inflati
no one has a food machine, enter 0."

Everyone followed instructions, though

"Line 9 provides space to multiply by t
times anything is zero. This round everyone s
enter the amount you had in line 7.

Carol entered 15.

"In line 11 enter the amount you had in li

Carol entered 0.

"Now subtract for line 12."

Carol entered 15. There was a stir of impa

"This seems like wasted motion now," th
"but if inflation begins this will help keep th
line 13 enter the number of baldicers that w
of your instructions and add."

Carol entered 35 and the total of line 12
covered her paper and waited.

"In line 15 enter 5 for the cost of living d
line 16."

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ector shouted, "Stop."

Twenty sighs were heard and a low chatter: "Almost finished the eighth line."

Over the confusion the director announced, "OK, OK. Write the total number of lines you completed at the bottom right hand corner. Now the Natural/Social Forces drawing. Everyone come quickly to the Game Director's table, take a card, read it, and return to your seat."

Another buzz, and a moan: "A drought! Minus six!"

The instructions continued, "OK. Time to fill the tally sheet, write your name on the top, and begin with round one. Transfer the total WYI score from your WYI slate to line 1."

Carol wrote 8 in the space and waited.

The director continued, "This round the increased production due to increased population is 1 baldicer. Enter 1 in line 2, and then add."

Carol entered the +1, added it to the existing 8 baldicers, and entered 9 in line three.

"Now enter the food machine factor in line 4. No one has a food machine this time, so enter 1. Now multiply and enter the results in line five."

Carol placed the food machine factor of 1 in line 4 and entered the product 9 in line five.

"Now," the director continued, "enter the amount of the Natural/Social Forces card in line 6. Either add or subtract and place the answer in line 7."

Carol entered a +6 for oil discovered, added it to the existing score and placed 15 in line 7.

"In line 8 enter the percentage of inflation in effect this round. Since no one has a food machine, enter 0."

Everyone followed instructions, though some students were puzzled.

"Line 9 provides space to multiply by the inflation percentage. Zero times anything is zero. This round everyone should enter 0. Now in line 10 enter the amount you had in line 7.

Carol entered 15.

"In line 11 enter the amount you had in line 9."

Carol entered 0.

"Now subtract for line 12."

Carol entered 15. There was a stir of impatience.

"This seems like wasted motion now," the director said apologetically, "but if inflation begins this will help keep the computation clear. Now in line 13 enter the number of baldicers that were written in paragraph five of your instructions and add."

Carol entered 35 and the total of line 12 and 13 added up to 50. Carol covered her paper and waited.

"In line 15 enter 5 for the cost of living during this round. Subtract for line 16."

Figure 2

Baldicer Worksheet: Carol's Progress

Tally Sheet	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7	Round 8
1. Enter WYI score	8	9	9	9	9	9	9	9
2. Enter increased production due to population growth	+ 1	+ 2	+ 3	+ 4	+ 5	+ 6	+ 7	+ 7
3. Add =	9	11	12	13	14	15	16	16
4. Enter Food Machine factor (white=1; green=5; gold=50)	× 1	× 5	× 5	× 5	× 5	× 5	× 50	× 50
5. Multiply =	9	55	60	65	70	75	800	800
6. Enter Natural/Social Forces factor (+ or −)	+ 6	+ 3	0	0	0	0	0	− 6
7. Add or subtract =	15	58	60	65	70	75	800	794
8. Enter inflation factor	× .0	× .04	× .08	× .14	× .20	× .24	× .28	× .28
9. Multiply		232	480	260 65	1400	300 150	6400 1600	6352 1588
=	.0	2.32	4.80	9.10	14.00	18.00	224.00	222.32
10. Enter line 7	15	58	60	65	70	75	800	794
11. Enter line 9 (round off to nearest whole number)	− 0	− 2	− 5	− 9	− 14	− 18	− 224	− 222
12. Subtract =	15	56	55	56	56	57	576	572
13. Enter Baldicers on hand (line 20 from previous round)	+ 35	+ 0	+ 39	+ 0	+ 12	+ 9	+ 41	+ 223
14. Add =	50	56	94	56	68	66	617	795
15. Enter cost of living (determined by population)	− 5	− 7	− 10	− 14	− 19	− 25	− 34	− 34
16. Subtract =	45	49	84	42	49	41	583	761
17. Enter transactions in planning period: borrowed or earned (+) loaned or spent (−)	+ 5	− 10	+ 16	+ 20	+ 60	+ 100	0	− 136

=	9	11	12	13	14	15	16	16
4. Enter Food Machine factor (white=1; green=5; gold=50)	× 1	× 5	× 5	× 5	× 5	× 5	× 50	× 50
5. Multiply =	9	55	60	65	70	75	800	800
6. Enter Natural/Social Forces factor (+ or –)	+ 6	+ 3	0	0	0	0	0	– 6
7. Add or subtract =	15	58	60	65	70	75	800	794
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15. Enter cost of living (determined by population)	– 5	– 7	– 10	– 14	– 19	– 25	– 34	– 34
16. Subtract =	45	49	84	42	49	41	583	761
17. Enter transactions in planning period: borrowed or earned (+) loaned or spent (–)	+ 5	– 10	+ 16	+ 20	+ 60	+ 100	0	– 136
18. Add/subtract =	50	39	100	62	109	141	583	625
19. Enter expenditures for Food Machines	– 50	– 0	– 100	– 50	– 100	– 100	– 360	– 0
20. Subtract (must be 0 or more or your people starve) =	0	39	0	12	9	41	223	625

Carol's total at the end of the computation phase was 45.

The planning period began with the directions: "The next two lines will be filled in by you as you do any bargaining you wish during the next ten minutes. Be sure to enter in line 17 plus or minus any amount you acquire or any amount you pay out. Add or subtract that amount for line 18. Remember: if you do not have one or more baldicers in line 20 when the round is complete, your people have starved, all 150 million, and you will no longer be a Food Coordinator."

The trading action began slowly except for one person who rushed across the room to whisper to another player. Carol looked at her tally sheet and realized she must have five more baldicers to purchase a food machine. She walked around the room asking, "Who wants to lend some baldicers at 100% interest?" Finally she got two takers. Jim entered -3 in his line 17 and Linda entered -2 in hers. Carol entered +5 and began to add as the Game Director announced that only one minute remained.

Carol walked to the Director's table and stood in line where another player was purchasing a food machine from one of the Directors. Her tally sheet was checked and the Director entered -50 in line 19 and 0 in line 20. Carol took the food machine clip back to her seat and slipped it on the WYI slate.

As the two lines were getting checked out Jim began a conversation: "Hey don't forget that 100%." "No more negotiations," called the Game Director: "I'll have to fine someone." Silence.

"Round two. Everyone have a WYI slate cleared and ready?"

Everyone got set, except Davis. He had gotten a Drought card and his people starved. He was at the side table looking at the poster paper and felt-tip pens.

"Ready? Begin." During the silence Davis wrote in big red letters, "150,000,000 people dead. How many more people will you starve?"

"Stop!" Loud sighs.

"I only got seven again!"

"Time for the N/S Forces drawing." Carol heard several people mutter, "Status Quo!" She drew a +3, read it aloud, and went to her seat. As they began the Tally period, Davis paraded among players holding up his sign.

The game continued for eight rounds.

In Round two Carol got 9 on her WYI. She added 2 for increased production and got 11 in line 3. Then she entered 5 in line 4 for her food machine. With her N/S Forces +3 she came up with 58 in line 7. Now the two food machines in use pushed inflation to 4%, which Carol entered in line 8. She multiplied and rounded it off to 2 in line 11. Computing down through line 16 she had 49 with which she repaid her loan and interest leaving 39 in line 20 since she made no purchases.

In Round three Carol borrowed 16 baldicers and bought two more food machines, which she let Bill and Linda use with agreement that they

pay her 10 baldicers each during the next rou
of 16 to her paid.

In Round four she collected her 20 baldi
17, totaled 62 in line 18, bought another fo
round with 12 baldicers and four food machin

Again she farmed out her extra machin
food machines in Round five.

In Round six she purchased a Super Food
food machines and 100 baldicers. However, s
starving people when one new member of the
out on the floor beneath her with a sign rea
Besides, with the population explosion pushi
was worried about her own people.

In Round seven Carol secured permission o
pay 20 baldicers per player to stop the pop
Game Director deducted the 360 baldicers, C
223.

In Round eight she realized that the purc
would again push inflation up, so she made
game with 625 baldicers after stopping popul
four other players.

This group stablized the economy and
ways to feed all the living population. If the
some questions might be raised about the pow
groups solve this many of the problems in th
about the sixth round the Directors could ha
debriefing.

Reflect back on the "Baldicer" expe
questions to guide your thinking:

- o What would you have done differe
role?
- o What factors in the game could
game outcome?
- o What psychological intangilbes we
- o What constitutes "winning" in a ga
- o What generic questions would you
the game?
- o Had the game ended in conflict r
would you debrief the game?

Role Playing

The role playing in "Baldicer" casts
food coordinators for 150 million people

f the computation phase was 45.
an with the directions: "The next two lines
u do any bargaining you wish during the next
er in line 17 plus or minus any amount you
pay out. Add or subtract that amount for line
t have one or more baldicers in line 20 when
people have starved, all 150 million, and you
rdinator."

n slowly except for one person who rushed
to another player. Carol looked at her tally
have five more baldicers to purchase a food
the room asking, "Who wants to lend some
Finally she got two takers. Jim entered -3 in
-2 in hers. Carol entered +5 and began to add
ced that only one minute remained.
ector's table and stood in line where another
machine from one of the Directors. Her tally
irector entered -50 in line 19 and 0 in line 20.
e clip back to her seat and slipped it on the

tting checked out Jim began a conversation:
." "No more negotiations," called the Game
neone." Silence.
ve a WYI slate cleared and ready?"
Davis. He had gotten a Drought card and his
e side table looking at the poster paper and

the silence Davis wrote in big red letters,
ow many more people will you starve?"

drawing." Carol heard several people mutter,
, read it aloud, and went to her seat. As they
paraded among players holding up his sign.

ght rounds.
9 on her WYI. She added 2 for increased
3. Then she entered 5 in line 4 for her food
s +3 she came up with 58 in line 7. Now the
hed inflation to 4%, which Carol entered in
nded it off to 2 in line 11. Computing down
with which she repaid her loan and interest
made no purchases.
rrowed 16 baldicers and bought two more
Bill and Linda use with agreement that they

pay her 10 baldicers each during the next round and considered their loan of 16 to her paid.

In Round four she collected her 20 baldicers and entered +20 in line 17, totaled 62 in line 18, bought another food machine, and ended the round with 12 baldicers and four food machines.

Again she farmed out her extra machines and purchased two more food machines in Round five.

In Round six she purchased a Super Food Machine in exchange for 6 food machines and 100 baldicers. However, she became disturbed by the starving people when one new member of the World Conscience stretched out on the floor beneath her with a sign reading "150,000,000 people." Besides, with the population explosion pushing up the cost of living, she was worried about her own people.

In Round seven Carol secured permission of each Food Coordinator to pay 20 baldicers per player to stop the population explosion. After the Game Director deducted the 360 baldicers, Carol ended the round with 223.

In Round eight she realized that the purchase of more food machines would again push inflation up, so she made no purchases and ended the game with 625 baldicers after stopping population growth and supporting four other players.

This group stablized the economy and population level and found ways to feed all the living population. If their game were played longer, some questions might be raised about the power of a few. However, not all groups solve this many of the problems in the game. At any point after about the sixth round the Directors could have stopped play and begun debriefing.

Reflect back on the "Baldicer" experience using the following questions to guide your thinking:

- o What would you have done differently if you were in Carol's role?
- o What factors in the game could have seriously altered the game outcome?
- o What psychological intangilbes were operating in the game?
- o What constitutes "winning" in a game like "Baldicer"?
- o What generic questions would you use as a teacher to debrief the game?
- o Had the game ended in conflict rather than consensus, how would you debrief the game?

Role Playing

The role playing in "Baldicer" casts students into the roles of food coordinators for 150 million people. As the game progresses, the responsibility of the role increases, particularly when economic choices begin to result in the life or death of millions of people.

Environmental Model

The game is based on the economic interrelatedness of mankind. The factors operating to bring the world together are limited food supplies, population growth, technology, natural disasters, and inflation. The factors preventing cooperation are the unequal distribution of wealth, national self-interest, and greed. Questions raised by the model might include:

What did you learn from the game?
Was the game consistent with real world conditions?
How did the game differ from reality?
What countries have no food machines today?
Is it possible for a poor country "to pull itself up by its boot straps?"
What responsibility do we have to the "have not" nations of the world?
Does technology offer hope for the future of mankind?

The Game

Initially, writing on the Work Yield Inventory slate constitutes the game component of "Baldicer." In time, this becomes little more than an exercise, for the amount of work has little to do with survival as a nation. For the "have" nations, the game becomes one of collecting food machines and determining degree of responsibility for their actions. For the "have not" nations it is one of survival.

2. Close-Ended Simulation

"The Game of Farming"[4]

To play the game you must assume the role of a farmer who for one reason or another has left home and moved to Settler County, Kansas, to start a new life. The role description which follows provides some basis upon which to make decisions.

Role Card

You have lived most of your life in the northern part of England. You are a farmer and wish to continue in a farming career. You are ambitious and you wish to expand your holdings, but you find it difficult to obtain land in your home area. You have read of the wonderful agricultural lands in the United States which may be obtained for very little money and you have decided to emigrate to the new world. Now you find yourself in

Settler County, Kansas. You have purchased
railroad and you have a team of mules, the
$1,500 with which to begin farming.

You have had experience raising wheat, ba
farm in England you raised a few hogs and ke
for the most part, you were a sheep raiser, fo
of your home area in England.

The homestead you have chosen consists
necessary farm equipment you brought with y
the area you are isolated and, outside of a railr
area as the land of "milk and honey," you ha
the type of farming required in the region.
quickly, for you need to allocate your $1,50
grazing stock. Of the $1,500 you have to start y
$500 of it for the cost of living while on
remains can be allocated in $100 units, the sm
to spend. Among the crops you can plant fo
wheat, oats, barley, or rye. An alternative to
cattle, sheep, and hogs. Dairy cattle cost mor
year you must allocate $200 per 40 acres.
investment, and in $100 units up to a maxi
require allocated land. Additional land can be
unit or, if you choose, rented to others for a f

Instructions

The Game Begins (Phase I)

Now look at the activity sheet for 1880 an
in the blank for your background according t
playing, the year (1880), and the total am
($1500) in the space next to "Capital". At the
and animals you may raise. The list indicates o
as cost of living, and has a space for a savi
interest.

The first column, "Allocations," is the onl
you plan your farming activities. You fill in the
is a sketch of your 1[illegible]0-acre farm on the activity
livestock, and rent are also listed on the activit
to use each 40-acre square, write the decisio
map, calculate the expense, and write that am
the "Allocations" column. For example, if you
40 acre area, write "wheat" in one square and
to wheat in the "Allocations" column. Another
may rent.

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life or death of millions of people.

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ring the world together are limited food
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Work Yield Inventory slate constitutes
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d Simulation

ing"[4]

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fe. The role description which follows
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Role Card

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nue in a farming career. You are ambitious
holdings, but you find it difficult to obtain
ave read of the wonderful agricultural lands
y be obtained for very little money and you
the new world. Now you find yourself in

Settler County, Kansas. You have purchased 160 acres of land from the railroad and you have a team of mules, the necessary machinery, and $1,500 with which to begin farming.

You have had experience raising wheat, barley, and oats. Also on your farm in England you raised a few hogs and kept a milk cow or two. But for the most part, you were a sheep raiser, for sheep are a major product of your home area in England.

The homestead you have chosen consists of 160 acres including the necessary farm equipment you brought with you. As an original settler in the area you are isolated and, outside of a railroad brochure describing the area as the land of "milk and honey," you have little information about the type of farming required in the region. Decisions have to be made quickly, for you need to allocate your $1,500 into a variety of crops or grazing stock. Of the $1,500 you have to start your farm, you must budget $500 of it for the cost of living while on the farm. The $1,000 that remains can be allocated in $100 units, the smallest that you are allowed to spend. Among the crops you can plant for $100 per 40 acre plot are wheat, oats, barley, or rye. An alternative to grain crops would be beef cattle, sheep, and hogs. Dairy cattle cost more to start with, so the first year you must allocate $200 per 40 acres. Hogs are a straight cash investment, and in $100 units up to a maximum of $600, they do not require allocated land. Additional land can be rented for $100 per 40 acre unit or, if you choose, rented to others for a fee of $100 per 40 acre unit.

Instructions

The Game Begins (Phase I)

Now look at the activity sheet for 1880 and at the top of the sheet fill in the blank for your background according to the farmer's role you are playing, the year (1880), and the total amount of money you have ($1500) in the space next to "Capital". At the left is a list of all the crops and animals you may raise. The list indicates other possible expenses, such as cost of living, and has a space for a savings entry. Savings earn no interest.

The first column, "Allocations," is the only column you will fill in as you plan your farming activities. You fill in the other columns later. There is a sketch of your 160-acre farm on the activity sheet. The costs for crops, livestock, and rent are also listed on the activity sheet. As you decide how to use each 40-acre square, write the decision or its abbrevation on the map, calculate the expense, and write that amount in the proper space in the "Allocations" column. For example, if you want to plant wheat in one 40 acre area, write "wheat" in one square and put $100 in the blank next to wheat in the "Allocations" column. Another sketch represents land you may rent.

The total you may spend is the figure you have recorded as "Capital" at the top of the activity sheet. Continue making allocations until you have utilized all your land or capital.

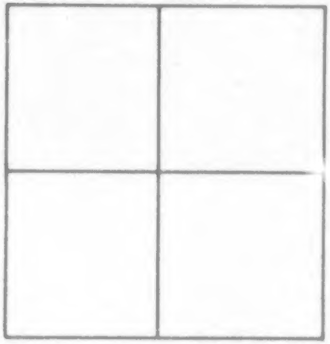
If, after you have made your allocations, you still have cash on hand but no land available, you may invest it in hogs, place it in savings, or rent more land.

1880-1882 ACTIVITY SHEET

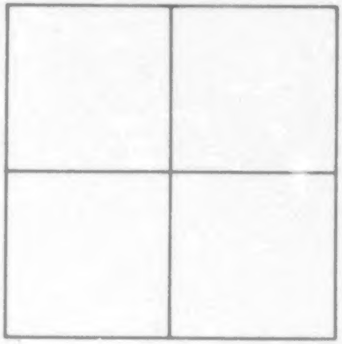
Year ____ **Background** ____ **Capital** ____

	Allocation	Multiplier	Outcome
Wheat	$____	$____	$____
Oats	$____	$____	$____
Barley	$____	$____	$____
Rye	$____	$____	$____
Corn	$____	$____	$____
Dairy Cattle	$____	$____	$____
Beef Cattle	$____	$____	$____
Sheep	$____	$____	$____
Hogs	$ 500	$ 0	$ 0
Cost of Living	$____	$____	$____
Rent	$____	$____	$____
Initial Investment for Dairying2	$____	$____	$____
Savings	$____	$ 1	$____
Total	$____	$____	$____

YOUR FARM



RENTED LAND



Each small square represents 40 acres

Costs per 40-Acre

Crop

Wheat
Oats
Barley
Rye
Corn

Livestock
Dairy Cattle (Maximum per 40 acres)*+
Beef Cattle (maximum per 40 acres)†
Sheep (Maximum per 40 acres)†
Hogs (Maximum per farm)@

Rent

Figuring Outcomes (Phase II)

Once you have made your allocations, yo successful your farming has been. You will ch the four reproduced on these pages. Pick a choose the outcome card that corresponds to it is a list of crops and livestock with a numbe each commodity. If you planted 40 acres of shows a multiplier of 2 after corn, record the 2 on the activity sheet. Then multiply that num in your "Allocations" column to figure th below.

	Allocation	Multip
Corn	$200	2

This operation should be repeated for each have chosen to raise.

*There is an extra expense of $200 for th

†Dairy cattle, beef cattle, and sheep investr a $400 maximum investment per 40-acre unit units of $100 on any 40 acres.

@Hogs are a straight cash investment ir maximum investment, and they do not need all e figure you have recorded as "Capital" Continue making allocations until you l.

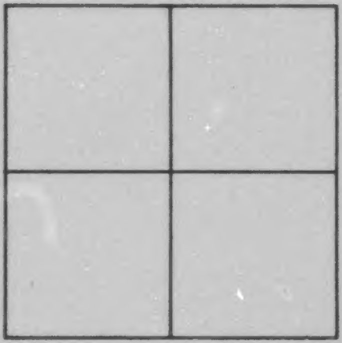
llocations, you still have cash on hand est it in hogs, place it in savings, or rent

CTIVITY SHEET

______

Multiplier	Outcome
$______	$______
$______	$______
$______	$______
$______	$______
$______	$______
$______	$______
$______	$______
$______	$______
$ 0	$ 0
$______	$______
$______	$______
$______	$______
$ 1	$______
$______	$______

RENTED LAND



mall square
nts 40 acres

Costs per 40-Acre Unit

Crop	
Wheat	$100
Oats	$100
Barley	$100
Rye	$100
Corn	$100
Livestock	
Dairy Cattle (Maximum per 40 acres)*+	$400
Beef Cattle (maximum per 40 acres)†	$400
Sheep (Maximum per 40 acres)†	$400
Hogs (Maximum per farm)@	$600
Rent	$100

Figuring Outcomes (Phase II)

Once you have made your allocations, you are ready to calculate how successful your farming has been. You will choose an outcome card from the four reproduced on these pages. Pick a number from 1-4 now and choose the outcome card that corresponds to the number you picked. On it is a list of crops and livestock with a number or multiplier, printed after each commodity. If you planted 40 acres of corn and the outcome card shows a multiplier of 2 after corn, record the 2 in the "Multiplier" column on the activity sheet. Then multiply that number by the amount recorded in your "Allocations" column to figure the "Outcome," as indicated below.

	Allocation	Multiplier	Outcome
Corn	$200	2	$400

This operation should be repeated for each of the crops or animals you have chosen to raise.

*There is an extra expense of $200 for the first year with dairy cattle.

†Dairy cattle, beef cattle, and sheep investments are in $100 units with a $400 maximum investment per 40-acre unit. Livestock may be mixed in units of $100 on any 40 acres.

@Hogs are a straight cash investment in $100 units with a $600 maximum investment, and they do not need allocated land.

Outcomes - 1880

Outcome Card 1

Most areas receive ample rainfall, but some parts of the county have a dry spring while others are missed by needed summer thunderstorms. Crop diseases and insects inflict serious damage only on a small part of the country. Both crop and livestock prices are good. Rains are adequate for all crops and you incur no damage to any crop.

Returns on your investment were as follows:

	MULTIPLIER
Wheat	2
Oats	2
Barley	2
Rye	2
Corn	2
Dairy Cattle	2
Beef Cattle	2
Sheep	2
Hogs	2

Outcome Card 2

Most areas receive ample rainfall, but some parts of the county have a dry spring while others are missed by needed summer thunderstorms. Crop diseases and insects inflict serious damage only on a small part of the county. Both crop and livestock prices are good. Rainfall is adequate for all crops dependent on fall moisture; snow melt helps wheat and barley but pasture and spring sown crops are hurt in initial stages. Summer rain is adequate but oats did not do well.

Returns on your investments were as follows:

	MULTIPLIER
Wheat	5
Oats	1
Barley	4
Rye	2
Corn	2
Dairy Cattle	1.5
Beef Cattle	2
Sheep	1.5
Hogs	2

Outcome Card 3

Most areas receive ample rainfall, but son
have a dry spring while others are missed
thunderstorms. Crop diseases and insects infli
on a small part of the county. Both crop a
good. Your farm receives fair spring rains. Cu
and a dry late summer hurt corn yields. Pastur
Returns on your investments were as follows:

Wheat
Oats
Barley
Rye
Corn
Dairy Cattle
Beef Cattle
Sheep
Hogs

Outcome Card 4

Most areas receive ample rainfall, but som
have a dry spring while others are missed
thunderstorms. Crop diseases and insects inflic
on a small part of the county. Both crop an
good. There had been good winter and spring
barley produced bumper crops but rains delay
and August experienced no thunderstorms an
rainfall, hot dry winds from the south in early
in milk stage.
Returns on your investment were as follows:

Wheat
Oats
Barley
Rye
Corn
Dairy Cattle
Beef Cattle
Sheep
Hogs

Outcomes - 1880

ne Card 1

nfall, but some parts of the county rs are missed by needed summer d insects inflict serious damage only Both crop and livestock prices are crops and you incur no damage to

as follows:

	MULTIPLIER
	2
	2
	2
	2
	2
	2
	2
	2
	2

ne Card 2

but some parts of the county have re missed by needed summer insects inflict serious damage only Both crop and livestock prices are crops dependent on fall moisture; but pasture and spring sown crops rain is adequate but oats did not

as follows:

	MULTIPLIER
	5
	1
	4
	2
	2
	1.5
	2
	1.5
	2

Outcome Card 3

Most areas receive ample rainfall, but some parts of the county have a dry spring while others are missed by needed summer thunderstorms. Crop diseases and insects inflict serious damage only on a small part of the county. Both crop and livestock prices are good. Your farm receives fair spring rains. Cutworms, bird damage, and a dry late summer hurt corn yields. Pastures are good.

Returns on your investments were as follows:

	MULTIPLIER
Wheat	3
Oats	0
Barley	2
Rye	2
Corn	0
Dairy Cattle	3
Beef Cattle	1.5
Sheep	1.5
Hogs	1

Outcome Card 4

Most areas receive ample rainfall, but some parts of the county have a dry spring while others are missed by needed summer thunderstorms. Crop diseases and insects inflict serious damage only on a small part of the county. Both crop and livestock prices are good. There had been good winter and spring moisture. Wheat and barley produced bumper crops but rains delayed oat planting. July and August experienced no thunderstorms and, without significant rainfall, hot dry winds from the south in early July ruined late oats in milk stage.

Returns on your investment were as follows:

	MULTIPLIER
Wheat	6
Oats	0
Barley	5
Rye	1
Corn	0
Dairy Cattle	1.5
Beef Cattle	1.5
Sheep	1.5
Hogs	2

After you have calculated each commodity and entered the amount in the "Outcome" column, total this column. The difference between this total of the "Outcome" column is the capital you have to work with in 1881. The amount should be entered on the 1881 activity sheet.

Be sure to read the introductory paragraph on your outcome card to find out why some of your investments failed and others were successful.

Now you are ready to make your allocations for 1881. If you went on to complete the full simulation you would base your decisions not only on your past experience but also on what you have learned during the first year's farming. After calculating your outcome, you would go on to 1882. The procedure is the same.

Reflect back on the "Farming" experience using the following questions to guide your thinking:

1) How realistic is "The Game of Farming"?
2) What part does strategy play in successfully farming in the game?
3) How would you compare the range and degree of choice in "Farming" with that of "Baldicer"?
4) How would you alter the game if you were to redesign it for the years 1933-35?
5) What generic questions would you use as a teacher to debrief the game?

Role Playing

In the "Game of Farming" role playing is important to get the student into farming and out onto the Kansas prairie. After the first year of farming, experience takes over and provides the basis for the choices the student will make.

Environmental Model

The factors making up the environmental model of the "Game of Farming" grow out of the precarious forces of nature, fluctuations of the market place, and the use of technology. The choices made as to crop and livestock allocation become progressively more complex as the game moves along. Student choice is important, but not nearly as important as the actual farming and market conditions that affect Kansas during the years simulated, and built into the outcomes cards. Questions suggested by the model might include:

What did you learn from the game?
What kind of factors influenced a farmer's success or failure?
How much control does a farmer have over his fate?
How did you feel when you had financial problems or when you lost your farm?
What kinds of comparisons can you make between farming and other forms of economic activity?

The Game

The game aspect of the simulati
enough income to continue existence
compete with themselves to increase
improve their condition from one year t

C. How Do You Build a Simu

Now that you have been introduced
you will be provided a model which
own simulation game later in the applic
In the game building exercise you will
game developed by the High School Ge
will consist of filling in the component
the game of Metfab.[5]

The Game Constru

1. The Problem

One of the most important c
the focus on some type of *prob*
simple one that grows out o
experience, or it can reflect larger
be of particular interest to social
Farming" the problem was to earn
the 1880's.

Directions: In the introduction to Me
what the focusing problem of that g
the space that is provided.

You are part of the management
company. Although you and each o
have a specific job, you as a grou
where to locate your factory.

The problem ________________

2. Providing for Choice

Another characteristic of simula
part of the game participants. T
provide for a range of choices. In "
choices were limited to wheat, c

ted each commodity and entered the amount in
otal this column. The difference between this
olumn is the capital you have to work with in
e entered on the 1881 activity sheet.
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om the game?
influenced a farmer's success or failur
es a farmer have over his fate?
en you had financial problems or when you

arisons can you make between farming and
mic activity?

The Game

The game aspect of the simulation is simply to accumulate enough income to continue existence as a farmer. The students compete with themselves to increase their capital investment and improve their condition from one year to the next.

C. How Do You Build a Simulation?

Now that you have been introduced to several simulation games, you will be provided a model which will help you generate your own simulation game later in the application section of the chapter. In the game building exercise you will be introduced to yet another game developed by the High School Geography Project. The exercise will consist of filling in the components for game construction using the game of Metfab.[5]

The Game Construction Model

1. The Problem

One of the most important characteristics of simulation is the focus on some type of *problem*. The problem can be a simple one that grows out of the students' immediate experience, or it can reflect larger societal problems that would be of particular interest to social scientists. In "The Game of Farming" the problem was to earn a living on a Kansas farm in the 1880's.

Directions: In the introduction to Metfab which follows, determine what the focusing problem of that game might be. Write the answer in the space that is provided.

You are part of the management team of a new metal fabricating company. Although you and each of the new members of your team have a specific job, you as a group must make the decision about where to locate your factory.

The problem ______________________________

2. Providing for Choice

Another characteristic of simulation is *choice* making on the part of the game participants. The problem chosen should provide for a range of choices. In "The Game of Farming" the choices were limited to wheat, oats, barley, rye, corn, and various combinations of livestock. The choice actually involved the way the participants allocated their capital resources.

Directions: In the scenario which follows, pick out the range of choices provided in the Metfab simulation and write the answers in the appropriate blanks.

> In addition to your special knowledge, each of you is aware of the general nature of production for the new company. Your factory will be medium sized with a total employment of about 200 persons. The company will purchase from copper and steel manufacturers and sell to other manufacturers. . .
>
> In previous meetings your management team has decided to locate in the United States. To date you have narrowed the list to the following eight cities which all of you agree are most likely to provide an adequate supply of workers and specialized suppliers. The cities are Atlanta, Cincinnati, Detroit, Houston, Los Angeles, New Orleans, New York, and Pittsburg.

THE PROBLEM
(To Locate a Profitable Factory)
Choice A Choice B Choice C Choice D Choice E (etc.)
______ ______ ______ ______ ______

3. Factors Influencing a Decision

The thing that separates simulation from the reality it portrays is the necessary process of limiting factors. Selecting factors to include in a simulation is not an easy task. One rule of thumb governing this selection should be their importance within the context of the problem being treated. Another factor is one of numbers. If too many factors are included, the simulation could easily become unmanageable. On the other hand, however, too few factors may make the game unrealistic and compromise its validity. The factors you include in the game and the ones you hold constant will determine the range of choices made by students. The realities of deploying a group or groups of students through a game should weigh heavily on the quantity and the type of factors considered.

In "The Game of Farming," for example, the farmer's role provided the initial factors that influenced the decision on the first crops planted in 1880. If the farmer was to survive the Kansas environment, however, he soon modified his farming strategies to consider such factors as rainfall, climate, insects, and, in later periods, markets, technolo
credit.

Directions: In the role descriptions
important factors influencing the
McNeil and Samuel Dubrowski a
appropriate blanks.

Ralph McNeil, *Sales Manager,*
the best sales location of Metfab
present market conditions and
finished products to this market.

Samuel Dubrowski, *Producti*
concerned with the production as
includes hiring a productive labo
cost of raw materials.

THE PROBLEM
(To Locate A Profitable

(Choices) Atlanta Cincinnati

Role, *McNeil* 1. ______
2. ______

Role, *Dubrowski* 1. ______
2. ______

The factors McNeil would favor are
shipping costs. Dubrowski, however,
productivity of labor and minimizing co
city would favor some of the factors an
the debate characterized by and built int

4. Role-Playing

Role-playing is another characteristi
Game of Farming" the initial role assi
more than a way to get students into the
Kansas prairie. Decision making in the g
of role and more a function of the far
during the first few rounds of the game
has chronic surpluses or shortages of agr
an indication that decision making in t
tied too closely to the immediate exper

ivestock. The choice actually involved llocated their capital resources.

rio which follows, pick out the range of the Metfab simulation and write the priate blanks.

special knowledge, each of you is aware of the ction for the new company. Your factory will total employment of about 200 persons. The from copper and steel manufacturers and sell to

your management team has decided to locate To date you have narrowed the list to the ich all of you agree are most likely to provide orkers and specialized suppliers. The cities are roit, Houston, Los Angeles, New Orleans, New

HE PROBLEM
e a Profitable Factory)
Choice C Choice D Choice E (etc.)

______ ______ ______

ing a Decision

rates simulation from the reality it process of limiting factors. Selecting mulation is not an easy task. One rule selection should be their importance problem being treated. Another factor too many factors are included, the become unmanageable. On the other actors may make the game unrealistic dity. The factors you include in the old constant will determine the range nts. The realities of deploying a group ough a game should weigh heavily on of factors considered.

ming," for example, the farmer's role rs that influenced the decision on the 80. If the farmer was to survive the wever, he soon modified his farming h factors as rainfall, climate, insects,

and, in later periods, markets, technology, transportation, and credit.

Directions: In the role descriptions which follow, pick out the important factors influencing the decision making of Ralph McNeil and Samuel Dubrowski and list these factors in the appropriate blanks.

Ralph McNeil, *Sales Manager,* age 45, is concerned with the best sales location of Metfab. Thus, he is interested in present market conditions and the shipping costs of the finished products to this market.

Samuel Dubrowski, *Production Manager,* age 41, is concerned with the production aspects of the company. This includes hiring a productive labor force and minimizing the cost of raw materials.

THE PROBLEM
(To Locate A Profitable Factory)

(Choices) Atlanta Cincinnati Detroit Houston

Role, *McNeil* 1. ______
2. ______

Role, *Dubrowski* 1. ______
2. ______

The factors McNeil would favor are market conditions and shipping costs. Dubrowski, however, is interested in the productivity of labor and minimizing cost of raw material. Each city would favor some of the factors and not others. This forces the debate characterized by and built into the various roles.

4. Role-Playing

Role-playing is another characteristic of simulation. In "The Game of Farming" the initial role assignments provided little more than a way to get students into the game and out onto the Kansas prairie. Decision making in the game was less a function of role and more a function of the farming experience gained during the first few rounds of the game. The fact that America has chronic surpluses or shortages of agricultural commodities is an indication that decision making in the agricultural realm is tied too closely to the immediate experiences of the farmer. In the Metfab simulation, role plays a much more important position in the ultimate outcomes of the game.

Directions: Compare and contrast the roles already given for Metfab and the roles of two other members of the decision making team. Record your answers in the blanks provided at the end of the role descriptions.

Gregory Williams, *President*, Age 53 is concerned with all facets of the factory's location and especially concerned with the market area having the best long-run prospects for the company.

Frank Greenstein, Personnel Manager, age 37, is concerned with the maintenance of an adequate, but inexpensive, labor force. He is also interested in an area attractive to middle and upper management. (Compare and contrast the roles in Metfab; what function would the roles serve in the game?)

Answer: ______________________________________

____

____

____

____

____

____

5. Game Outcomes

A simulation must be based on an environmental model that embodies some type of cause and effect relationship. Payoff in "The Farming Game" is due to the precarious forces of nature. There are, however, some factors which man controls, and often they do make the difference between success and failure in farming. In dry years a choice to plant wheat or to pasture animals will provide higher returns than a decision to plant corn. The outcomes in the game are the multipliers which take into consideration the variables that influence the amount harvested and the market ratios. In the Metfab simulation there is no immediate payoff outside of preserving the general welfare

of the company. The motivation in
conflict that is built into the roles.
conflict are the role of Sales Manag
Assume the role of "Metfab" Sales
based on the factors you think imp
suited to plant location according to

Ralph McNeil, *Sales Manage*
the best sales location for Metf
present market conditions and
finished products to this market.

Market Tabl

Metropolitan Area

New York
Cincinnati
Atlanta
Houston
Los Angeles
Pittsburg
Detroit

Total Costs for Shipping the Fi
Market Area

Metropolitan Area
Houston
Cincinnati
New York
Pittsburgh
Atlanta
New Orleans
Detroit
Los Angeles

Best Site Location According to McN

____

Reasons:

1. ____________________________

2. ____________________________

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outcomes of the game.
and contrast the roles already given for
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variables that influence the amount
t ratios. In the Metfab simulation there
outside of preserving the general welfare

of the company. The motivation in "Metfab" comes from the conflict that is built into the roles. Two of the roles in obvious conflict are the role of Sales Manager and Production Manager. Assume the role of "Metfab" Sales Manager Ralph McNeil and, based on the factors you think important, choose the city best suited to plant location according to the following data.

Ralph McNeil, *Sales Manager*, age 45, is concerned with the best sales location for Metfab. Thus, he is interested in present market conditions and the shipping costs of the finished products to this market.

Market Table

Metropolitan Area	**Tons of Product Sold Annually**
New York	1,600
Cincinnati	1,500
Atlanta	1,100
Houston	1,000
Los Angeles	800
Pittsburg	600
Detroit	300

Total Costs for Shipping the Finished Product to Market Areas

Metropolitan Area	**Product Shipping Costs**
Houston	$1,500,000
Cincinnati	1,500,000
New York	1,550,000
Pittsburgh	1,600,000
Atlanta	1,650,000
New Orleans	1,800,000
Detroit	1,900,000
Los Angeles	1,900,000

Best Site Location According to McNeil:

Reasons:

1.

2.

Assume the role of Samuel Dubrowski and based on the factors you think important, choose the city suited to plant location according to the following data:

Samuel Dubrowski, *Production Manager*, age 41, is concerned with the production aspects of the company. This includes hiring a productive labor force and minimizing the cost of raw materials.

Costs of Shipping Raw Materials to Selected Metropolitan Areas

Metropolitan Area	Steel Shipping Costs
Pittsburgh	0
Los Angeles	62,000
New York	120,000
Atlanta	148,000
Cincinnati	182,000
New Orleans	206,000
Houston	300,000

Labor Productivity Index

Metropolitan Area	Productivity Index
New York	7.23
Houston	7.18
Pittsburgh	7.15
Atlanta	6.99
Cincinnati	6.66
New Orleans	6.40
Detroit	6.20
Los Angeles	6.10

Best Site Location According to Dubrowski:

____

Reasons:

1. ______________________________

2. ______________________________

Assume the role of Gregory Williams and in the interests of ensuring the best possible location site, mediate between McNeil and Dubrowski and choose a site that is best for the company.

Gregory Williams, *President*, age 53, is concerned with all facets of the factory's location and especially concerned with the market area having the bes the company.

Best Site Location According to Willian

____

Reasons:

1. ______________________________

2. ______________________________

6. Conflict Resolution

The purpose of Metfab is to invo geography and to help them come to t factory location. Although there is Metfab, the "correct" answer is not outcome. This outcome could be dete Game Construction Model suggested in

You have already labeled two of factors which influence the choice McNeil, for example, is interested in and shipping cost of the finished prod under the city if the factor is positi neutral and a (-) if the factor is negativ pluses wins.

Figure 3

The Game Construction Mo

		Pr	
		Choice A	Choice
	Factor 1	Positive	Positive
Role X	Factor 2	Negative	+
	Factor 3	Neutral	-
	Factor 4	Positive	+
Role Y	Factor 5	Negative	-
	Factor 6	Neutral	0
	Factor 7	Neutral	0
Role Z	Factor 8	Negative	-
	Factor 9	Neutral	+

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s, *President*, age 53, is concerned with all 's location and especially concerned with the market area having the best long-run prospects for the company.

Best Site Location According to Williams:

____

Reasons:

1. ______________________________

2. ______________________________

6. Conflict Resolution

The purpose of Metfab is to involve students in economic geography and to help them come to terms with the problem of factory location. Although there is a city that is best for Metfab, the "correct" answer is not important to the game outcome. This outcome could be determined by completing the Game Construction Model suggested in Figure 3.

You have already labeled two of the roles and six of the factors which influence the choices that are made. Ralph McNeil, for example, is interested in the number of customers and shipping cost of the finished product. You can place a (+) under the city if the factor is positive, a (0) if the factor is neutral and a (-) if the factor is negative. The city with the most pluses wins.

Figure 3
The Game Construction Model

		Problem			
		Choice A	Choice B	Choice C	Choice D
	Factor 1	Positive	Positive	Neutral	Negative
Role X	Factor 2	Negative	+	+	0
	Factor 3	Neutral	-	-	-
	Factor 4	Positive	+	0	+
Role Y	Factor 5	Negative	-	-	-
	Factor 6	Neutral	0	+	0
	Factor 7	Neutral	0	+	+
Role Z	Factor 8	Negative	-	-	-
	Factor 9	Neutral	+	0	0

The problem in Metfab was the location of a factory. The choices were limited to such cities as Pittsburgh, Los Angeles, New York, Atlanta, and Houston. The factors in the game were both economic and personal. The economic factors included such things as market ratios, shipping cost, capital, and labor productivity. The personal factors were nearness to relatives, climate, and recreation. Each city could be judged on how well it fit each of the factors. Roles in the game generate spokesmen who are in favor of one set of factors over another. The best city for the factory is the one that best satisfied the various factor considerations.

A careful adherence to the High School Geography Project's simulation diagram will result in a closed-ended game. Although the diagram has elements common to most simulations, the careful specification of factors will largely pre-determine the game outcome, and, as a result, limit the range of choice available to students. The simulation diagram contains the same potential danger for the game developer. The diagram specifies every step in simulation design, and because of its thoroughness of detail, it may limit the range of choice open to the teacher in developing and using simulation. Livingston has outlined seven general guidelines to simulation development which treat design from a little different perspective.

Guidelines to Simulation Development[6]

1. Identify the *roles* of participants in the real-life situation and of the players in your game. In some games all players take the same role; in others they take different roles. But in any good simulation game, players represent *only those persons or groups whose decisions affect the outcomes.*
2. Determine each player's *goals* and choose a *measure of success* for each player. The measure may be a concrete unit (such as dollars or votes) or an abstract unit (such as points or credits). Of course, two players cannot compare their scores unless the scores are expressed in the same unit of measurement.
3. Identify the *resources* available to each player which he can use to influence the outcome in his favor. These also may be concrete objects (such as factories, men, money) or abstract qualities (such as prestige or ability). When you have identified each kind of resources, determine their *relative importance*-- that is, their power to influence the course of events, either directly

or by influencing the decisions of oth
4. Determine the *interactions* between g
the way in which each player's actio
and their chances for success. Gen
classified as cooperative or competi
may both cooperate and compete w
game.
5. Determine the *sequence of events.*
repeating cycles or a single, non-repea
a natural conclusion or be of ind
indefinite length, you will have to
when the game is over. This could be
(as in basketball or football), at the
repetitions of the sequence (as in ba
has reached a certain score (as in vol
do use an artificial means of ending
adjust the scoring to avoid enco
strategies that wouldn't make sense in
6. Determine the *external factors*--th
decisions and actions--that will affect
include the actions of participants in
are not represented by players in the
factors will be constant, some will de
the game, and some will be affected
for chance factors by using dice, c
probabilities implied should match th
(if it is possible to know what they ar
7. Identify the *physical factors* affec
situation and organize them onto a p
may be convenient to have a separ
instead of one large board for the
important physical factors are ge
probably take the form of a map. If
will probably be a systematic diag
physical factors are unimportant, ther

D. How Do You Use a Simulat

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or by influencing the decisions of other players.

4. Determine the *interactions* between players in the game--that is, the way in which each player's actions affect the other players and their chances for success. Generally, interactions can be classified as cooperative or competitive, although two players may both cooperate and compete with each other in the same game.
5. Determine the *sequence of events.* This may be a series of repeating cycles or a single, non-repeating sequence. It may have a natural conclusion or be of indefinite length. If it is of indefinite length, you will have to devise a means of deciding when the game is over. This could be at the end of a given time (as in basketball or football), at the end of a given number of repetitions of the sequence (as in baseball), or when one player has reached a certain score (as in volleyball or pingpong). If you do use an artificial means of ending the game, you may have to adjust the scoring to avoid encouraging special end-game strategies that wouldn't make sense in the real-life situation.
6. Determine the *external factors*--those outside the player's decisions and actions--that will affect the outcome. These would include the actions of participants in the real-life situation who are not represented by players in the game. Some of the external factors will be constant, some will depend on other conditions of the game, and some will be affected by chance. You can allow for chance factors by using dice, cards, or spinners, but the probabilities implied should match those in the real-life situation (if it is possible to know what they are).
7. Identify the *physical factors* affecting the outcome of the situation and organize them onto a playing board. (Sometimes it may be convenient to have a separate board for each player instead of one large board for the whole game.) If the most important physical factors are geographic, the board will probably take the form of a map. If they are not geographic, it will probably be a systematic diagram of some kind. If the physical factors are unimportant, there may be no board at all.

D. How Do You Use a Simulation?

A simulation game is a total learning activity and like a short story it has a beginning, a middle, and an end. When a teacher moves through a simulation, he must shift roles when moving from one phase of the game to the next. In the case of simulation games the introduction phase, the group work phase, and the debriefing phase present different problems requiring different types of teacher behavior.

Introduction (Phase I)

The success or failure of simulation in the classroom often depends on how well the teacher knows the game. The best way to learn a simulation is to play it before entering the classroom. First hand experience will help the teacher sort out what at first might seem like a bewildering array of roles, descriptions, and directions. A thorough knowledge of the game will also allow the teacher to establish the classroom climate needed for the game to work. If the game is taken seriously by the teacher, there is a good chance the students will get into their roles and also take the game seriously. In "The Game of Farming" students would pair off as householders and share the decision making tasks. In games which require only a limited number of players, roles can be split with two or three students assuming the same role. Roles can be assigned by chance drawing as in "The Game of Farming" or they can be randomly or selectively assigned. Role assignment and task clarification require a directive approach on the part of the teacher. If strict compliance to the rules is a necessary part of the game, the teacher will have to maintain a moderating role throughout the game.

Group Work (Phase II)

One of the characteristics of simulation is choice making on the part of the game participants. Most classroom simulations require group activity and during this activity the teacher should be as non-directive as possible. The game model will usually insure that proper decisions will be rewarded, and that decisions entailing poor judgment will not. Although the teacher must preserve student choice, it is also important to be available whenever difficulties arise. In "The Farming Game," for example, the teacher could assume the role of an agricultural agent and help the students with procedural problems. In many games the teacher can assume a consultation or diagnostic role and move from group to group without disrupting the flow of the game.

Debriefing (Phase III)

The most important and critical teac
during the debriefing, for it is during th
relationships are drawn between the stud
and the concepts, models, and gener
simulation design. One approach that c
game is to begin the discussion around q
the students, experiences while playi
questions could deal with such obviou
What, for example, helped the winne
conversely, what strategies were n
competition? It is sometimes helpful t
exchanges during the game and to explo
student behaviors in the debriefing.
exchanging ideas, the discussion can shi
which explore the game model itself. Ho
closely did it recreate real life situations,
of reality be improved? Finally, the ques
the game model implications. What s
possible, given the complexity of issues
type of social and value positions did t
reason rather than emotion influence the

There are two basic problems that c
of simulation in the classroom. Any
over-used but the misuse of simulation c
learning is little more than fun and "ga
that learning should never be fun, becaus
least one fun period a day, but it is sugge
can be serious intellectual exercises. On t
are demanding on the teacher and if prop
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Simulation should never be considered a
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Application

Experience with pre-service teachers
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Phase I)

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Phase II)

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the teacher can assume a consultation or
om group to group without disrupting the

Debriefing (Phase III)

The most important and critical teacher role of any game comes during the debriefing, for it is during this time that the important relationships are drawn between the student experiences in the game and the concepts, models, and generalizations implied in the simulation design. One approach that can be used in debriefing a game is to begin the discussion around questions related directly to the students, experiences while playing the same. These first questions could deal with such obvious topics as game strategy. What, for example, helped the winners to achieve success and conversely, what strategies were not suited to successful competition? It is sometimes helpful to record interesting verbal exchanges during the game and to explore these and other specific student behaviors in the debriefing. Once the students begin exchanging ideas, the discussion can shift to higher level questions which explore the game model itself. How real was the game? How closely did it recreate real life situations, and how could its portrayal of reality be improved? Finally, the question strategy could explore the game model implications. What solutions, for example, are possible, given the complexity of issues treated in the game? What type of social and value positions did the game suggest? How can reason rather than emotion influence the direction that people take?

There are two basic problems that can arise through the misuse of simulation in the classroom. Any learning strategy can be over-used but the misuse of simulation can leave the impression that learning is little more than fun and "games." This isn't suggesting that learning should never be fun, because every student deserves at least one fun period a day, but it is suggesting that good simulations can be serious intellectual exercises. On the other hand, simulations are demanding on the teacher and if properly used will require more planning and more work than most traditional teaching strategies. Simulation should never be considered a substitute for work and an excuse for "letting up" on the job.

Application

Experience with pre-service teachers has convinced the author that not all potential teachers can write curriculum materials, and this is particularly true of simulation games. Enough creative ideas come through, however, to warrant the effort and make it a worthwhile exercise. In most cases the good ideas are also the simple ideas, suggesting that complex games might better be left to the commercial game developers. One student, for example, developed a simulation around the Westward movement and the frustrations and dangers experienced by the wagon train settler. The monopoly format was used, but instead of a board, the Oregon Trail was plotted on a big map with squares representing various hazards of the westward journey. At significant points along the trail, students would draw from various card piles representing Indians, forts, river crossings, mountains, and deserts. The settler that made it to Oregon or California with enough money to buy a farm was considered a winner. Another student recreated the flow of settlers over the Appalachian Mountains into the old Northwest. The plight of the Indian was recreated in a role playing situation where each confrontation between white and Indian was settled by the toss of a die. At first the Indian held his own, but on each successive round the white received an additional role representing his regenerative population power. The simulation would take little class time, but its potential impact could be great. In application"A" you will be asked to use the "Pioneers in Arania" game for at least one class period. If you want to carry it on for a more extended period, you could actually turn your classroom into a simulated environment and have a unique education experience. In Application "B" you will develop a simulation of your own, consistent with the objectives you established in Chapter I.

Application "A"

Directions: The game will be presented in its entirety so that it can be used in the classroom. The questions following the game will assist you in analyzing the game according to the characteristics of game construction.

The Simulation: "Pioneers in Arania"[7]

Situation

Beings from another planet, in another galaxy, have observed the way we have been living on Earth. They are more powerful than we

are, and they have decided to selec
participate in an experiment. Because t
way we treat each other, regardless of ou
and despite our levels of intelligence, the
you as one of the 1,000 Earth people t
their galaxy. Your goal is to create a socie

Since they have used a computer t
those on Earth right now, there will be
number of farmers, a number of blacks
that the Earth will be destroyed as soo
that your memory of this will be erased.
have a choice: (1) you may decide to be
civilization, in which case the Beings wi
including language; or (2) you may deci
are and all that the Earth accomplished
Beings say that unless you agree unanim
other another 1,000 Earth people will be

Procedures (Teacher Directio

25 Minutes 1. (a) Distribute
necessary time
thoroughly. Op
write Q on the
to justify their
does (the answe
(b) Encourage
for their tentati

---

*In your society of the 1,000
o305 people are white, and 695 are no
o60 are Americans, 64 are Russians
Chinese;
othe 60 Americans have had nearly h
the other 940 have shared the other half;
omore than 400 cannot read or write;
o330 are Christians, while 670 eith
(Moslem, Jewish, Hindu, Buddhist) or
beliefs.
Dr. Henry Leiper, former official
Churches, worked out these figures.

p warrant the effort and make it a
cases the good ideas are also the simple
ex games might better be left to the
One student, for example, developed a
ard movement and the frustrations and
wagon train settler. The monopoly
ad of a board, the Oregon Trail was
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erts. The settler that made it to Oregon
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created the flow of settlers over the
the old Northwest. The plight of the
role playing situation where each
and Indian was settled by the toss of a
his own, but on each successive round
ional role representing his regenerative
tion would take little class time, but its
eat. In application "A" you will be asked
ia" game for at least one class period.
for a more extended period, you could
into a simulated environment and have
ce. In Application "B" you will develop
, consistent with the objectives you

"A"

l be presented in its entirety so that it
lassroom. The questions following the
in analyzing the game according to the
construction.

Simulation:
rs in Arania"[7]

et, in another galaxy, have observed the
arth. They are more powerful than we are, and they have decided to select 1,000 Earth people to participate in an experiment. Because they are not happy with the way we treat each other, regardless of our origins of race and nation, and despite our levels of intelligence, these Beings are going to send you as one of the 1,000 Earth people to Arania, another planet in their galaxy. Your goal is to create a society which has no wars.

Since they have used a computer to get proportions* such as those on Earth right now, there will be a number of Americans, a number of farmers, a number of blacks, etc. These Beings tell you that the Earth will be destroyed as soon as your group leaves, and that your memory of this will be erased. Furthermore, they say you have a choice: (1) you may decide to begin all over again to build a civilization, in which case the Beings will erase your *total* memory, including language; or (2) you may decide to remember all that you are and all that the Earth accomplished and build from there. The Beings say that unless you agree unanimously to one choice or the other another 1,000 Earth people will be selected.

Procedures (Teacher Directions)

25 Minutes 1. (a) Distribute the simulation. Allow necessary time for students to read thoroughly. Open Q and A session and write Q on the board. Encourage students to justify their questions: "What difference does (the answer) make?"
(b) Encourage students to outline reasons for their tentative choice.

---

*In your society of the 1,000

o305 people are white, and 695 are non-white;

o60 are Americans, 64 are Russians, and 225 are Communist Chinese;

othe 60 Americans have had nearly half the total income while the other 940 have shared the other half;

omore than 400 cannot read or write;

o330 are Christians, while 670 either belong to other faiths (Moslem, Jewish, Hindu, Buddhist) or have no formal religious beliefs.

Dr. Henry Leiper, former official of the World Council of Churches, worked out these figures.

20 Minutes 2. In groups of four or five, allow students to challenge each other with the goal of attaining a unanimous decision. (Take a hand vote first to determine the best combinations for grouping. In four lessons with students and four with teachers, we have generally had classes equally divided between choices 1 and 2.)

10 Minutes 3. Summary and final vote.

Procedure (Student Directions)

Question and Answer Phase *10 Minutes* 1. Ask the Being (the instructor) any questions you need answered in order to decide which choice to make. You can ask only a limited number of questions, so make each one count. Once the Being calls for the decision you can ask no further questions.

Writing and Thinking Phase *10 Minutes* 2. List in two columns the advantages of beginning anew and the advantages of building from what you all have achieved. Read the statistics concerning your "Society of the 1,000." Remember: unless you maintain harmony, another 1,000 people will be selected. Write a brief statement revealing your tentative choice.

Group Discussion Phase *20 Minutes* 3. Take a preliminary, unofficial vote and see where your group stands. Try to convince each other of the advantages and disadvantages of the choices.

The Decision 4. The Being will call for a final official vote between choices 1 and 2.

The Assessment

Directions: The questions which follow relate to the structural components of "Pioneers in Arania". Answer the questions as part of the pre-tutorial assessment of the game.

1. How is role playing used in the game?
2. What limitations do the roles
game?
3. What environmental factors e
factors are held constant?
4. What function does the teacher
game?
5. What would be considered a su
the vantage point of the tea
point of the student?
6. What motivates students as the
7. What constitutes a game winner

Role Playing

The roles of the game are establishe
introduces the game. It is a situation
participants "to identify values regarding
clarify conflicts concerning rebuilding a
participants then, is to get into the situat
a limited number of alternatives. The tea
Being from another planet who encoura
the participants to choose the alternativ
building anew.

Environmental Model

The environmental model of the game
factors:

"If participants decide to build ane
they can solve differences in their presen
modify society this reflects optimism reg
achieve and maintain harmony." The teach
very much a part of the environment m
guide the direction of discussion so that
spelled out and so that participants can
The choice itself is not as important as th
it. The introductory phase of the simula
decision is made but the discussion leadin
provide guidelines for developing the s
which would actually be to create a soc
such values as "cooperation, co-existence,

oups of four or five, allow students to
enge each other with the goal of
ning a unanimous decision. (Take a
vote first to determine the best
binations for grouping. In four lessons
students and four with teachers, we
generally had classes equally divided
een choices 1 and 2.)
mary and final vote.

irections)

the Being (the instructor) any
tions you need answered in order to
le which choice to make. You can ask
a limited number of questions, so
each one count. Once the Being calls
the decision you can ask no further
tions.
in two columns the advantages of
ning anew and the advantages of
ling from what you all have achieved.
d the statistics concerning your
iety of the 1,000." Remember: unless
maintain harmony, another 1,000
le will be selected. Write a brief
ment revealing your tentative choice.
a preliminary, unofficial vote and see
your group stands. Try to convince
other of the advantages and
vantages of the choices.
Being will call for a final official vote
een choices 1 and 2.

which follow relate to the structural
rs in Arania". Answer the questions as
assessment of the game.
used in the game?

2. What limitations do the roles place on the actors in the game?
3. What environmental factors exist in the game and what factors are held constant?
4. What function does the teacher play as a component of the game?
5. What would be considered a successful game strategy from the vantage point of the teacher and from the vantage point of the student?
6. What motivates students as they move through the game?
7. What constitutes a game winner?

Role Playing

The roles of the game are established in the "Situation" which introduces the game. It is a situation which requires the game participants "to identify values regarding their present society and clarify conflicts concerning rebuilding a society. The role of the participants then, is to get into the situation and make choices from a limited number of alternatives. The teacher assumes the role of a Being from another planet who encourages a decision which forces the participants to choose the alternatives of modifying society or building anew.

Environmental Model

The environmental model of the game is based on the following factors:

"If participants decide to build anew, this reflects doubt that they can solve differences in their present society. If they decide to modify society this reflects optimism regarding mankind's ability to achieve and maintain harmony." The teacher in the role of a Being, is very much a part of the environment model, for the teacher must guide the direction of discussion so that the alternatives are clearly spelled out and so that participants can make a meaningful choice. The choice itself is not as important as the cerebrations that lead to it. The introductory phase of the simulation ends when the group decision is made but the discussion leading up to that decision would provide guidelines for developing the second phase of the game which would actually be to create a society without war through such values as "cooperation, co-existence, and compromise."

The Game

The motivation for the game centers around the type of choice the participants are asked to make. By being required to defend their choice of maintaining the existing society or of creating a new society the participants are dealing with value issues of great significance. The game rules require a consensus opinion so participants must ask questions, debate alternatives and arrive at a decision they can defend. The winners in a game like this are the group who, at the end of the game, have a clearer understanding of society and its problems than when they entered it.

Application "B"

Directions: Using the objectives you have developed in Chapter I and "A Six Step Process for Constructing Simulation," which follows, develop a simulation game that will accomplish those objectives. You may need to review the "Analysis" section of Chapter V to complete the six-step model.

A Six-Step Process for Constructing Simulation

Processes

Step 1: Problem Focus

Two things should be considered in selecting a topic for a simulation. First, it should be a topic you want to teach, for methodology should always be subordinate to instructional purpose. Second, it should involve a process. If the focus is on a problem, the process involved is one of decision-making.

Step 2: Objectives and Debriefing

Clearly stated behavioral objectives will indicate what students should be able to do after the simulation that they couldn't do before it. The objectives and the debriefing questions based on them should be tentative until the game is completed and as a totality, its cognitive, affective and skill potential is explored.

Step 3: Decision Making Model

It is important to elaborate further on the process chosen for study. Place yourself in a hypothetical decision-making role and list all of the choices that would typically have to be made in resolving the problem or reaching a conclusion. Review the choices and eliminate any that are not essential in the decision-making process.

Step 4: Roles and Resources

Identify the roles of various participants in a real life situation based on your decision-making model. Eliminate any non-essential roles and keep only the ones that deal with the type of choices outlined in Step 3. Determine some measure of success or failure and distribute resources among the various roles in terms of tokens, money, credits, prestige, utils, points, votes or other comparable units of measurement.

Step 5: Environmental Model

Making the environmental model obvious to the players by establishing cause-and-effect relationships is the most difficult part of game construction. You have already selected a problem and outlined a decision-making process made up of roles and choices. The chart below should help in determining the factors influencing the

Materials

Title

A tentative title should be selected in order to provide focus. To keep focus throughout game construction, the title should be placed at the top of both worksheets used in game construction. One worksheet will be used to develop teacher materials and the other will be used to develop student materials.

Teacher's Guide

The teacher's guide will be the first entry on the teacher materials worksheet. The purpose of the game centers around the type of choice make. By being required to defend their existing society or of creating a new e dealing with value issues of great les require a consensus opinion so ions, debate alternatives and arrive at a he winners in a game like this are the e game, have a clearer understanding of when they entered it.

"B"

jectives you have developed in Chapter I ess for Constructing Simulation," which nulation game that will accomplish those need to review the "Analysis" section of e the six-step model.

s for Constructing Simulation

	Materials
n- a a e- h e. s. he n- **g** c- ts he	**Title** A tentative title should be selected in order to provide focus. To keep focus throughout game construction, the title should be placed at the top of both worksheets used in game construction. One worksheet will be used to develop teacher materials and the other will be used to develop student materials. **Teacher's Guide** The teacher's guide will be the first entry on the teacher materials worksheet. The purpose of the guide is to keep track of simulation objectives and corresponding discussion questions which measure their accomplishment. All categories on the teacher materials worksheet are subject to later elaboration and clarification. **Scenario** The scenario would be the first entry on the student materials worksheet. The scenario should describe the decision making model and the setting of the problem or process being simulated. It could be a historical or current setting depending on the problem focus of the simulation. **Role Cards** The second entry on the student materials worksheet is a set of role descriptions. The roles can be written for individuals or for classes of people. They should be as believable as possible to help players get into the roles. The role cards should contain information about player goals in relation to the game outcomes. The role card should also describe the resources provided each player. **Rules and Pay-Off Matrix** Playability of a game is very important to its success or failure. There may be a conflict between playability and reality. To resolve this conflict jot down, as the third entry on the student materials worksheet, the rules governing what players can and cannot do as they progress through the game. If the rules are too complex you may

simulation that they couldn't do before it. The objectives and the debriefing questions based on them should be tentative until the game is completed and as a totality, its cognitive, affective and skill potential is explored.

Step 3: Decision Making Model

It is important to elaborate further on the process chosen for study. Place yourself in a hypothetical decision-making role and list all of the choices that would typically have to be made in resolving the problem or reaching a conclusion. Review the choices and eliminate any that are not essential in the decision-making process.

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Step 5: Environmental Model

Making the environmental model obvious to the players by establishing cause-and-effect relationships is the most difficult part of game construction. You have already selected a problem and outlined a decision-making process made up of roles and choices. The chart below should help in determining the factors influencing the choices players make.

		Factors Internal/ External	Outcomes (+) (0) (-)
	Choice No. 1		
Role	Choice No. 2		
	Choice No. 3		
Etc.	Etc.		

The internal factors are built into the roles. They are usually the factors that influence such player interaction as competition and/or cooperation. The external factors are outside the players' control but they also influence game outcomes. They could be situational factors that relate to the changing conditions of the game. They may be constant factors built into the game rules or they may be chance factors subject to dice, cards or spinners. The outcomes can be positive, neutral, or negative but they should be realistic given the players' resources, and the decision strategies used.

Step 6: Sequence of Events

Because simulation is a model of the real world, events covering long periods of time might be covered in minutes in a game. Most simulations will have sequences based on time limits, rounds, or other natural breaks in the action. Sometimes sequences are used to determine the length of play. At times only enough sequences are used to achieve the game objectives and once they are achieved the game ends. If sequences are patterned, it is possible to use them to interject new variables or rules into the game. need to limit either the choices or the number of factors influencing game outcomes. Rules can also stipulate assumptions and be used to hold extraneous variables constant.

Some type of payoff matrix should be developed. It could be charts linking choices to payoffs, a map outline, or game boards. Game materials of this nature present a gestalt of the game situation and/or show player progress through the game. If rules are still too complex but further simplification would destroy game realism, they may be introduced in stages, according to the sequences built into the game.

Directions

The final entry on the teacher materials worksheet should deal with directions. Careful directions are necessary in order to deploy numbers of students through a game sequence. Once the game is completed it should be transcribed from the worksheets into a suitable format for use. The game should then be tested in the classroom and revised into its final form.

Notes

1 Douglas C. Wilms and John F.
Simulation of Contemporary Geo-Po
Geography, LXX (November 1971),
permission of the National Council for Ge

2 Ronald Stadsklev, "Games Analys
working paper], Concordia Teachers C
1969. Dr. Stadsklev is now teaching
Education at the University of Alabama,

3 Georgeanne Wilcoxon, "Baldi
(Richmond, Virginia.) This and other
are listed in Chapter XI.

4 Robert W. Richburg, *Teaching Pro*
Studies: Using Evaluation to Improve I
The High School Geography Project
Association of American Geographers, 19
permission of the Association of Americ
actually eight different Outcome Cards f
the game was carried out according to its
would cover the years 1880-1882. I
encounters the growth years of the
Depression years of the Thirties would be

5 Dana G. Kurfman and Ina M. Philli
the New Social Studies: Using Simula
Provisional ed., The High School Geogr
D.C.: The Association of American Geo
by permission of the Association of A
work, along with the ones cited in the pr
Chapter III, is part of the *Manufacturing*
was created for the High School Geo
published by The Macmillan Publishi
Geography in an Urban Age.

6 Samuel A. Livingston, "How to d
[Mimeographed paper], Center for t
Organization of Schools, John Hopki

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Notes

1 Douglas C. Wilms and John F. Steinbrink, "Escalation: A Simulation of Contemporary Geo-Politics," *The Journal of Geography*, LXX (November 1971), 492-497. Reprinted by permission of the National Council for Geographic Education.

2 Ronald Stadsklev, "Games Analysis System" [Mimeographed working paper], Concordia Teachers College, Seward, Nebraska, 1969. Dr. Stadsklev is now teaching at the Institute of Higher Education at the University of Alabama, Tuscaloosa.

3 Georgeanne Wilcoxon, "Baldicer" [Simulation game] (Richmond, Virginia.) This and other games in this chapter are listed in Chapter XI.

4 Robert W. Richburg, *Teaching Procedures for the New Social Studies: Using Evaluation to Improve Instruction*, provisional ed., The High School Geography Project (Washington, D.C.: The Association of American Geographers, 1970), pp. 5-10. Reprinted by permission of the Association of American Geographers. There are actually eight different Outcome Cards for each year of the game. If the game was carried out according to its design, the first encounter would cover the years 1880-1882. In the second and third encounters the growth years of the early Twenties and the Depression years of the Thirties would be treated.

5 Dana G. Kurfman and Ina M. Phillips, *Teaching Procedures for the New Social Studies: Using Simulation to Involve Students*, Provisional ed., The High School Geography Project (Washington, D.C.: The Association of American Geographers, 1970). Reprinted by permission of the Association of American Geographers. This work, along with the ones cited in the preceding note and in note 7, Chapter III, is part of the *Manufacturing and Agriculture Unit* which was created for the High School Geography Project and since published by The Macmillan Publishing Co., under the title *Geography in an Urban Age*.

6 Samuel A. Livingston, "How to design a Simulation Game" [Mimeographed paper], Center for the Study of the Social Organization of Schools, John Hopkins University, Baltimore,

Maryland. This work has since been elaborated on and published (1970) in a book entitled *Simulation Games: An Introduction for the Social Studies Teacher* by the Free Press, New York.

7 Barbara Olmo, "Pioneers in Arania," *Social Education,* XXXVI (January, 1972), 58-60. Reprinted by permission of the National Council for the Social Studies and Barbara Olmo.

Chapter VI Evaluation

So far *Perspectives* has attempted to further develop the teacher's skill in becoming a more intelligent decision maker in social studies instruction. The range of decision making has encompassed such areas as objectives, questioning, valuing, inquiring, and simulation. Educational objectives function in several ways. First, they establish the general guidelines for instruction within which various content and methodological alternatives are possible. Secondly, they set the general ground rules for evaluation which, if explicit, can guide the teacher in improving instruction. Objectives and their evaluation counterpart define and assess in such a way that the decisions made in one component of instruction influence the decisions made in other components. Finally, evaluation can be used to assign grades. All too often, however, evaluation is defined only in terms of grading or assessing the products of instruction. In Chapter VI the definition of evaluation will include its several functions and will be broad enough to assess the processes that make up instruction.

The purpose of Chapter VI is to explore in much more depth the interrelatedness of the various components of instruction. Evaluation has been used throughout *Perspectives* in the form of self-correcting feedback loops which guided the reader through the various experience, analysis, and application sections of the handbook. Both product and process evaluation will be formalized and applied to the content and methodology used in *Perspectives*. The activities of the chapter will attempt to answer the question, "How do we know when learning takes place?"

Experience

Notes to the Teacher: In the task which follows you are going to experience a prototype evaluation. The evaluation instrument used is cognitive in nature and evaluates such products as knowledge, understanding, and applicability of the various themes and ideas treated thus far in *Perspectives*. The act of taking this self-administered evaluation instrument will provide a common experience in evaluation which will be analyzed and applied in the later sections of Chapter VI.

A. Cognitive Evaluation

Directions: Complete the following examination according to the directions introducing the instrument. This isn't a timed test, but it is designed to last approximately 60 minutes. The point totals are suggested for each cluster of questions and will be used later when the test is compared with the criteria established by the test designer.

Examination - Perspectives
Chapter I-VI

Item

1. **Analyze the following objective by checking the appropriate category of student role orientation, levels of thought, domains of response, and structure characterized by the objective.**
Students will be able to match, from a list of ten prominent historians and from a corresponding list of ten of their principal works, the appropriate authors and titles, missing no more than two. (8 pts.)
    a. Student Role Orientation
        (1)______The Scholarly Man
        (2)______The Public Man
        (3)______The Personal Man
    b. Levels of Thought
        (1)______Information
        (2)______Interpretation
        (3)______Application
    c. Domains of Response
        (1)______Cognitive Domain
        (2)______Affective Domain
        (3)______Social Studies Skills
    d. Structure
        (1)______General
        (2)______Informational
        (3)______Planning

2. **Read the specimen objective and complete the operations required of the directions that follow it. (6 pts.)**
During a 30-minute quiz the students will be able to correctly label by name 40 out of the 49 states outlined on an otherwise blank map of the continental United States.
    a. Transform the objective into a test item that would measure the objective.

    ____

    ____

    ____

    b. Rewrite the objective in a for
    level thinking.

    ____

    ____

    ____

3. **Assume you wanted to teach the powers" as part of a unit on federa content you plan to use is the follow**
Senator Henry Jackson
President Richard Nixon
Justice William O. Douglas
Governor Robert Ray
Representative Shirley Chisholm
Chief Justice Warren Burger
Mayor Richard Daley
Councilman James Blank
Suggest a sequence of generic questic suggested by Taba for teaching thoug
    a. Concept Formation
        (1)______________________
        (2)______________________
        (3)______________________
    b. Interpretation of Data
        (1)______________________
        (2)______________________
        (3)______________________
    c. Application of Principles
        (1)______________________
        (2)______________________
        (3)______________________

4. **Match the various types of questions of the correct designator on the left. (**

the instrument. This isn't a timed test, last approximately 60 minutes. The sted for each cluster of questions and n the test is compared with the criteria designer.

ion - Perspectives apter I-VI

ving objective by checking the appropriate role orientation, levels of thought, domains ecture characterized by the objective.

ble to match, from a list of ten prominent a corresponding list of ten of their principal iate authors and titles, missing no more than

ientation
cholarly Man
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Studies Skills

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objective and complete the operations re- ons that follow it. (6 pts.)

quiz the students will be able to correctly nt of the 49 states outlined on an otherwise ntinental United States.

bjective into a test item that would measure

____

____

____

b. Rewrite the objective in a form that would require higher level thinking.

____

____

____

3. **Assume you wanted to teach the concept of "separation of powers" as part of a unit on federalism in your civics class. The content you plan to use is the following list of names:**

Senator Henry Jackson
President Richard Nixon
Justice William O. Douglas
Governor Robert Ray
Representative Shirley Chisholm
Chief Justice Warren Burger
Mayor Richard Daley
Councilman James Blank

Suggest a sequence of generic questions, following the three tasks suggested by Taba for teaching thought process. (9 pts.)

a. Concept Formation

(1)______________________________

(2)______________________________

(3)______________________________

b. Interpretation of Data

(1)______________________________

(2)______________________________

(3)______________________________

c. Application of Principles

(1)______________________________

(2)______________________________

(3)______________________________

4. **Match the various types of questions on the right with the letter of the correct designator on the left. (6 pts.)**

a. Rhetorical

b. Information

c. Leading

d. Probing

e. Other

1. ______ Who wants to sit back and relax for 5 minutes?
2. ______ What arguments might we offer to suggest that in any society there is a relationship between the techniques for obtaining food and religious beliefs and practices?
3. ______ Shall we go on with the lesson?
4. ______ What did we learn about Hopi religion in our discussion yesterday?
5. ______ What does the study of the Hopi tell us about ourselves?
6. ______ If leather rots quickly in moist ground what do you conclude about soil conditions in the area where the leather was discovered?

5. **Using Parson's Guided Self-Analysis System, role play a situation where the teacher responds to a student remark according to the designated response categories. (8 pts.)**
Student: "England was sympathetic because Lincoln wanted to free the slaves."

a. Teacher A (closure) ______________________________

b. Teacher B (sustaining) ______________________________

____

c. Teacher C (verbal reward) ______________________________

d. Teacher D (extending) ______________________________

____

6. **An effective social studies program should enable students to develop certain intellectual, public, and personal values required of life in today's changing society. (9 pts.)**

a. List three of the intellectual values.

(1) ______________________________

(2) ______________________________

(3) ______________________________

b. List three of the public valu

(1) ______________________________

(2) ______________________________

(3) ______________________________

c. List three of the personal va

(1) ______________________________

(2) ______________________________

(3) ______________________________

7. **The three methods of approac *tives* are listed below. Describe of using each based on the uni three approaches. (6 pts.)**

a. Discrepant Data Approach

(1) ______________________________

(2) ______________________________

b. Controversial Issues Approa

(1) ______________________________

(2) ______________________________

c. Open-ended Approach

(1) ______________________________

(2) ______________________________

8. **One of the characteristics of in vided by the teacher during a t which follows, there are three p Choose the letter that best repr of the teacher when stressing t tions. (6 pts.)**

1. _____Who wants to sit back and relax for 5 minutes?
2. _____What arguments might we offer to suggest that in any society there is a relationship between the techniques for obtaining food and religious beliefs and practices?
3. _____Shall we go on with the lesson?
4. _____What did we learn about Hopi religion in our discussion yesterday?
5. _____What does the study of the Hopi tell us about ourselves?
6. _____If leather rots quickly in moist ground what do you conclude about soil conditions in the area where the leather was discovered?

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losure) ______________________________

staining) ______________________________

____

rbal reward) ______________________________

xtending) ______________________________

____

ial studies program should enable students to ntellectual, public, and personal values required changing society. (9 pts.)

of the intellectual values.

____

____

(3) ______________________________

b. List three of the public values.

(1) ______________________________

(2) ______________________________

(3) ______________________________

c. List three of the personal values.

(1) ______________________________

(2) ______________________________

(3) ______________________________

7. **The three methods of approaching values suggested in *Perspectives* are listed below. Describe two possible dangers or problems of using each based on the unique nature implied in each of the three approaches. (6 pts.)**

a. Discrepant Data Approach

(1) ______________________________

(2) ______________________________

b. Controversial Issues Approach

(1) ______________________________

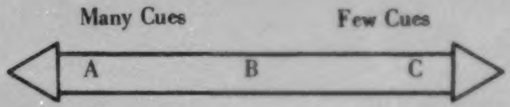
(2) ______________________________

c. Open-ended Approach

(1) ______________________________

(2) ______________________________

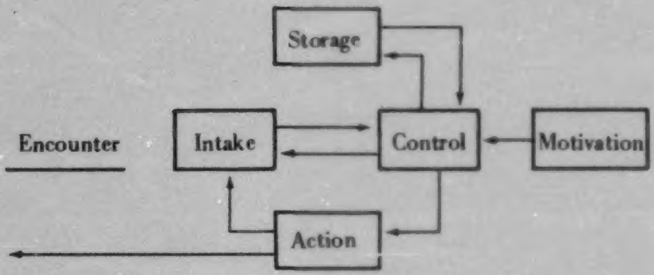
8. **One of the characteristics of inquiry is the number of cues provided by the teacher during a typical lesson. On the continuum which follows, there are three points marked by A and B and C. Choose the letter that best represents the approximate position of the teacher when stressing the various student role orientations. (6 pts.)**



a. ____ The Scholarly Man (as authority on the social sciences)
b. ____ The Scholarly Man (as investigator of his world)
c. ____ The Public Man (as possessor of moral truth)
d. ____ The Public Man (as decision maker)
e. ____ The Personal Man (as self-adjusted)
f. ____ The Personal Man (as choice-maker)

9. **Use the Suchman Model of Inquiry to discuss the following episode. Because the model is an internal one, assume the role of one of the students in class and describe the thinking-learning-acting process that is going on as the result of Mrs. Smith's teaching. (12 pts.)**

Figure 1



The children read *A Christmas Carol*. Mrs. Smith wants to know which children actually read the story and how much they remember. She goes around the room asking questions about the story. If a child cannot answer or has the "wrong" answer, Mrs. Smith goes to the next child.

a. Encounter ____________________

b. Intake ____________________

c. Storage ____________________

d. Motivation ____________________

e. Action ____________________

f. Control ____________________

10. **Simulation games contain the follo each of the components with examp ing.) (5 pts.)**

a. An Instructional Purpose and Fo

b. An Environmental Model ____________

c. Competition or Conflict ____________

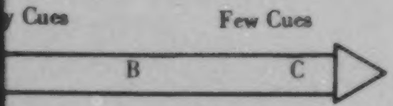
d. Roles ____________________

e. Winner ____________________

11. **As students progress through a simula or teaching behavior will usually ch teaching behavior that might accompa simulation. (6 pts.)**

a. While introducing the game ____________

b. While the game is in play ____________



ly Man (as authority on the social sciences)
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Man (as possessor of moral truth)
Man (as decision maker)
l Man (as self-adjusted)
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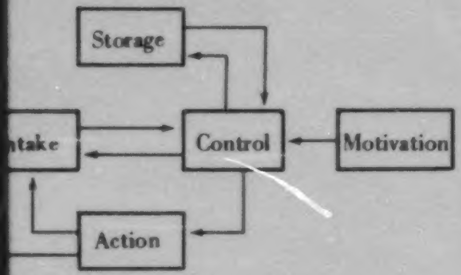
Figure 1



l *Christmas Carol.* Mrs. Smith wants to know ually read the story and how much they around the room asking questions about the nnot answer or has the "wrong" answer, Mrs. ext child.

____

____

____

____

____

____

d. Motivation ______________________________

____

e. Action ______________________________

____

f. Control ______________________________

____

10. Simulation games contain the following components. (Illustrate each of the components with examples from the Game of Farming.) (5 pts.)

a. An Instructional Purpose and Focus ______________________________

____

b. An Environmental Model ______________________________

____

c. Competition or Conflict ______________________________

____

d. Roles ______________________________

____

e. Winner ______________________________

____

11. As students progress through a simulation game the teacher's role or teaching behavior will usually change. Describe the type of teaching behavior that might accompany the following stages of a simulation. (6 pts.)

a. While introducing the game ______________________________

____

b. While the game is in play ______________________________

____

c. While debriefing the game ______________________________

____

12. **Following are themes which might be treated in an 11th grade American history class. Circle the letter of the most appropriate teaching method for each theme. In the space to the right of the alternatives provide a one sentence rationale for your answer. (18 pts.)**

a. Not all the signers of the Declaration of Independence were men of sterling character.
   1) Lecture — Rationale: ______________
   2) Discrepant Data
   3) Class Discussion — ______________
   4) Individual Research Report

b. The historiography of the Revolutionary War Era.
   1) Lecture — Rationale: ______________
   2) Discrepant Data
   3) Role Playing — ______________
   4) Individual Research Report

c. The forces, factors, and frustrations which make any revolution a political reality.
   1) Lecture — Rationale: ______________
   2) Small Group Discussion — ______________
   3) Simulation
   4) Individual Research Report

d. The underlying and immediate causes of the Revolutionary War.
   1) Discrepant Data — Rationale: ______________
   2) Simulation
   3) Class Discussion — ______________
   4) Role Playing

e. The state of medical technology at the outbreak of the Civil War.
   1) Lecture — Rationale: ______________
   2) Simulation
   3) Role Playing — ______________
   4) Individual Research Report

---

f. **Is killing ever justified?**
   1) **Lecture**
   2) **Problem Solving Approach**
   3) **Small Group Discussion**

B. Reflections o
Experience S

The assumptions made about t
program participants was reflected
struction used. The major assumptio
experienced teachers and that each w
rudimentary knowledge about the t
the conclusion of the program, it
vidual's "methodological perspective
intellectual grounding and a firmer en

Before the test can be analyzed
is necessary to refer to the progra
tive objectives will provide the framew
they specify the type of behavior de
program. If the evaluation instrume
tives, the instrument will determine
achieved. The relationship between ob
receive a great deal of attention in
reporting of test results will receive
for grading is a small part of the evalu

If participants fail to achieve th
tional program, the fault does n
participants. Before classifying a st
objective, the instruction should un
evaluation. Process evaluation will in
components of the instructional prog
blame. It will also indicate whether
the author or teacher of the program
blame is allocated, its allocation will
extent that it provides guidelines f
future instruction. This concern will
and application sections that follow.

ing the game ______________________________

____

emes which might be treated in an 11th grade class. Circle the letter of the most appropriate for each theme. In the space to the right of the de a one sentence rationale for your answer. (18

gners of the Declaration of Independence were g character.

Rationale: ______________

t Data
ussion ______________________
Research

aphy of the Revolutionary War Era.

Rationale: ______________

t Data
ng ______________________
Research

ctors, and frustrations which make any revolu reality.

Rationale: ______________

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Data
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Rationale: ______________

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Research

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f. Is killing ever justified?
   1) Lecture
   2) Problem Solving Approach
   3) Small Group Discussion

Rationale: ______________

____

B. Reflections on the Experience Section

The assumptions made about the entering behavior of the program participants was reflected in the type of test construction used. The major assumption was that participants were experienced teachers and that each would enter the program with rudimentary knowledge about the themes treated in Part I. By the conclusion of the program, it was assumed that the individual's "methodological perspectives" would reflect a sounder intellectual grounding and a firmer emotional commitment.

Before the test can be analyzed and its results reported it is necessary to refer to the program's objectives. The cognitive objectives will provide the framework for test analysis in that they specify the type of behavior desired from the instructional program. If the evaluation instrument reflects program objectives, the instrument will determine if the objectives have been achieved. The relationship between objectives and evaluation will receive a great deal of attention in the pages that follow. The reporting of test results will receive considerably less attention, for grading is a small part of the evaluation process.

If participants fail to achieve the objectives of an instructional program, the fault does not always rest with the participants. Before classifying a student as not achieving an objective, the instruction should undergo a systematic process evaluation. Process evaluation will indicate whether the various components of the instructional program should also share the blame. It will also indicate whether the blame should rest with the author or teacher of the program. In whatever degree the blame is allocated, its allocation will be functional only to the extent that it provides guidelines for improving present and future instruction. This concern will be evident in the analysis and application sections that follow.

Analysis

Evaluation has been defined throughout *Perspectives* as a formative process of examination in which outcomes have been measured against predetermined standards for the purpose of improving instruction. This definition stresses decision-making on the part of the teacher during the instructional process. Evaluation allows the teacher to intervene during the formulation of student behavior in an effort to identify areas of remediation. This is a departure from the narrower product or "summative" definition of evaluation which is concerned with the final educational outcomes at the termination of the instructional processes. It is imperative that teachers employ both formative and summative evaluation.

The task of analysis in this chapter is not to evaluate individuals, per se, but to evaluate the present program by the changes it brings about in the people using it. Even if it were desirable, it would be physically impossible to evaluate the reader and to provide meaningful summative feedback. Attention, therefore, will focus on process or "formative" evaluation of the author and the effectiveness of Part I of the handbook. Analysis of the self-administered evaluation instrument will explore how tests are constructed, how tests are analyzed, and how tests can be used to improve instruction.

A. How Tests are Constructed

The construction of cognitive and skill test instruments will be based on the following generalizations:

- Objectives establish rules for test construction.
- Tests should measure the degree to which the objectives are achieved.
- Test items should be properly designed.

The content focus for the three generalizations above will be the cognitive objectives established for Part I of *Perspectives* (see box below) and cognitive test items used to evaluate them (introduced in discussion). Because of the close relationship between objectives and test items, both sets of statements will be needed to complete the chapter activitie
tive test construction. Familiarity with
objectives is necessary for the subsequent

Cognitive Objectives To Be Used in Di

a. General Objectives
The purpose of Part I of *Perspectives*
experience in using the instructional pro
tion, questioning, valuing, simulating, inqu
improve learning in their own classrooms. Thi
presupposes that teachers can answer the fo
and through the process of answering them
value:
(1) **What should be taught?**
(2) **What constitutes thinking?**
(3) **What should be valued?**
(4) **What sustains an open learning environmen**
(5) **What aspects of instruction can simulate re**
(6) **What is necessary to determine if learning**
b. Informational Objectives
In answer to the question, "What should b
(1) **Participants will be provided examples o
jectives and be required to categorize the
the following classifications: Student Ro
Thought; Domains of Response and Struct**
(2) **Participants will be provided examples o
jectives and will be required to transform
items that measure their intended behavior**
(3) **Participants will be provided examples of c
tion or knowledge level and be required to
into objectives that require higher level t
lined in the taxonomies of educational obj**
In answer to the question, "What constitut
(4) **Participants will be provided a familiar so
the subject matter content suitable for tea
will demonstrate their ability to write g
quencing them according to the three co
the Taba Model.**
(5) **Participants will be provided a list of qu
series of oral classroom questions. They
understanding of Parson's schedule "A" b
system to the questions.**
(6) **Participants will be able to write each of
response categories following a hypothetic
could call for designated responses.**

(Continued)

ned throughout *Perspectives* as a
nation in which outcomes have
ermined standards for the purpose
definition stresses decision-making
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ntervene during the formulation of
to identify areas of remediation.
narrower product or "summative"
is concerned with the final educa-
ation of the instructional processes.
mploy both formative and summa-

his chapter is not to evaluate indi-
uate the present program by the
e people using it. Even if it were
ly impossible to evaluate the reader
mative feedback. Attention, there-
or "formative" evaluation of the
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ation instrument will explore how
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are d

itive and skill test instruments will
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es for test construction.
the degree to which the objectives

operly designed.
three generalizations above will be
lished for Part I of *Perspectives*
test items used to evaluate them
cause of the close relationship be-
ns, both sets of statements will be

needed to complete the chapter activities associated with cognitive test construction. Familiarity with the following cognitive objectives is necessary for the subsequent discussion.

Cognitive Objectives To Be Used in Discussion Below

a. General Objectives

The purpose of Part I of *Perspectives* was to provide teachers experience in using the instructional processes of goal specification, questioning, valuing, simulating, inquiring, and evaluating to improve learning in their own classrooms. This general goal orientation presupposes that teachers can answer the following broad questions, and through the process of answering them, come to know and to value:

(1) What should be taught?
(2) What constitutes thinking?
(3) What should be valued?
(4) What sustains an open learning environment?
(5) What aspects of instruction can simulate reality?
(6) What is necessary to determine if learning has taken place?

b. Informational Objectives

In answer to the question, "What should be taught?"

(1) Participants will be provided examples of performance based objectives and be required to categorize the objectives according to the following classifications: Student Role Orientation; Levels of Thought; Domains of Response and Structure.
(2) Participants will be provided examples of performance-based objectives and will be required to transform these objectives into test items that measure their intended behaviors.
(3) Participants will be provided examples of objectives at the information or knowledge level and be required to rewrite those objectives into objectives that require higher level thought processes as outlined in the taxonomies of educational objectives.

In answer to the question, "What constitutes thinking?"

(4) Participants will be provided a familiar social science concept and the subject matter content suitable for teaching the concept. They will demonstrate their ability to write generic questions by sequencing them according to the three cognitive tasks outlined in the Taba Model.
(5) Participants will be provided a list of question categories and a series of oral classroom questions. They will demonstrate their understanding of Parson's schedule "A" by matching the category system to the questions.
(6) Participants will be able to write each of Parson's schedule "B" response categories following a hypothetical student remark which could call for designated responses.

(Continued)

In answer to the question, "What should be valued?"

(7) Participants should recognize the need for affective development on the part of students and be able to list worthwhile intellectual, public, and personal values.

(8) Participants will be provided the names of various approaches to values education and demonstrate their understanding of the approach by listing weaknesses unique to each.

In answer to the question, "What sustains an open learning environment?"

(9) Participants will be able to infer from the various student role orientations of teachers, the type of inquiry implied in each orientation and match the two using the number of teacher cues as criteria.

(10) Participants will be provided an outline of the Suchman Model of Inquiry and a description of a teaching sequence. They will demonstrate an understanding of each component of the model by assuming the role of a student in the example and describing the process of inquiry the student goes through.

In answer to the question, "What aspects of instruction can simulate reality?"

(11) Participants will be provided an outline of the various structural components of a simulation and fill in the outline with appropriate examples from one of the simulations treated in the handbook.

(12) Participants will be able to describe appropriate teaching strategies according to the differing teacher roles required in the game introduction, in the actual game activity, and in the final game debriefing.

In answer to the question, "What is necessary to determine if learning has taken place?"

(13) Participants will acquire and be able to demonstrate a repertoire of teaching strategies and be able to gear these strategies to different teaching themes and be able to defend these strategies in terms of sound teaching theory.

(14) Participants will recognize the functional relationship between objectives and evaluation by being able to match specific objectives with the test items that measure them.

(15) Participants will be able to judge the evaluation instruments used in *Perspectives* and criticize them in terms of such instructional components as: objectives, assessment, activities, implementation, evaluation and hidden components.

1. Objectives establish rules for test construction.

Objectives contain the rules for test construction in the following ways: In the first place they reflect the student role orientation the teacher is developing; therefore, test

items should measure behavior
vidual the objectives define. Se
various domains of response, so
the evaluation instrument used
objectives can set standards for
"effective thinking"; yet, regar
expectations, thinking in class c
evaluation that is used. In order t
a legitimate educational objecti
"effective thinking" through th
and demand it by the type of

a. **Student Role Orientation**

Objectives should defin
teacher develops through
manner the behavior requir
should illustrate behavior ch
The objectives of *Perspectiv*
student role orientation
"scholarly-investigating man."

Directions: Complete th
on the objectives esta
the cognitive test ta
Based on the followin
list the behavioral att
to illustrate the "sch
should be possible
attributes from the si

tion, "What should be valued?"
ecognize the need for affective development
nts and be able to list worthwhile intellectual,
values.
provided the names of various approaches to
d demonstrate their understanding of the
eaknesses unique to each.
estion, "What sustains an open learning en-

able to infer from the various student role
hers, the type of inquiry implied in each
h the two using the number of teacher cues as

rovided an outline of the Suchman Model of
ription of a teaching sequence. They will
rstanding of each component of the model by
a student in the example and describing the
student goes through.
uestion, "What aspects of instruction can

provided an outline of the various structural
lation and fill in the outline with appropriate
the simulations treated in the handbook.
ble to describe appropriate teaching strategies
ffering teacher roles required in the game
actual game activity, and in the final game

estion, "What is necessary to determine if
ce?"
ire and be able to demonstrate a repertoire of
d be able to gear these strategies to different
be able to defend these strategies in terms of
y.
ognize the functional relationship between
ion by being able to match specific objectives
at measure them.
ble to judge the evaluation instruments used
riticize them in terms of such instructional
ctives, assessment, activities, implementation,
components.

blish rules ction.

ain the rules for test construction in the the first place they reflect the student e teacher is developing; therefore, test items should measure behavior typical of the type of individual the objectives define. Secondly, if objectives cover various domains of response, so in a similar manner should the evaluation instrument used to measure them. Finally, objectives can set standards for excellence and can require "effective thinking"; yet, regardless of excellence or high expectations, thinking in class closely parallels the type of evaluation that is used. In order to make "effective thinking" a legitimate educational objective teachers must reinforce "effective thinking" through their instructional processes, and demand it by the type of evaluation they employ.

a. Student Role Orientation

Objectives should define the type of individual a teacher develops through his program. In a similar manner the behavior required of a teacher's test items should illustrate behavior characteristic of that program. The objectives of *Perspectives* would suggest that the student role orientation of the program is the "scholarly-investigating man."

Directions: Complete the following activities based on the objectives established for *Perspectives* and the cognitive test taken earlier in the chapter. Based on the following test items from page **113**, list the behavioral attributes the author would use to illustrate the "scholarly investigating man." It should be possible to determine at least ten attributes from the six test items that are given.

Test Item (See Cognitive Test, pp. 113-116)	**Behavioral Attributes**
Item 1 Analyze the following objective by checking the appropriate category of student role orientation, levels of thought, domains of response, and structure characterized by the objective.	1 ________________ 2 ________________
Item 2 Read the specimen objective and complete the operations required of the directions that follow it. (Transform objectives into test items and re-write objectives into a form that would require higher level thinking.)	3 ________________ 4 ________________
Item 3 Assume you wanted to teach the concept, "Separation of Powers" . . . Suggest a sequence of generic questions following the three tasks suggested by Taba for teaching thought processes.	5 ________________ 6 ________________
Item 7 The three methods of approaching values suggested in *Perspectives* are listed below. Describe two possible dangers or problems of using each based on the unique nature implied in each of the three approaches.	7 ________________ 8 ________________
Item 9 Use the Suchman Model of Inquiry to discuss the following episode.	9 ________________ 10 ________________
Item 12 Following are themes which might be treated in an 11th grade American history class. Circle the letter of the most appropriate teaching method for each theme.	11 ________________ 12 ________________

Analysis based on a simple listing of the behavioral attributes required of the program's evaluation instrument is one way to determine the student role orientation of an instructional program. The behavior required by the test items summarized above would be charac-

terized by such attributes as:
educational objectives; the abilit
into test items that measure c
conceive, organize, and *plan* co
the ability *to analyze* instruc
nological model of inquiry; an
content in terms of appropriat
Inherent in these attributes is
of education is knowledge and sk
can be applied to improve ed
orientation may be appropriate
moving through an inservice tea
it may not always be appropria
classroom. There are times wher
tion should be the "Public Ma
education is growth and where
decision making based on the r
ence. There are times when the
"personal man" where the essen
and where students are require
choice makers throughout their

If a test instrument truly
purports to measure, analysis
attributes of *program objectives*
determining a program's stu
Compare the above behavioral
test items with the behavioral a
corresponding objectives. (See p

b. **Domains of Response**

The same approach used in
orientation can be used to
response. For the purposes of
categorized in the cognitive, ski
You have already determined th
pp.113-116 require a role orien
behavioral attributes associate
investigating man." In the activi
analyze specific test items to de
skill domains used in *Perspective*
Directions: In the followi
domains of response call

6)

	Behavioral Attributes
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of	2________________
tive.	
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quired	3________________
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test	4________________
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r teach-	
oaching	
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Inquiry	9________________
isode.	10________________
h	
n	11________________
ss.	
t	12________________
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on a simple listing of the behavioral
of the program's evaluation instru-
o determine the student role orienta-
ional program. The behavior required
summarized above would be characterized by such attributes as: the ability *to categorize* educational objectives; the ability *to transform* objectives into test items that measure objectives; the ability to *conceive, organize,* and *plan* conceptually-based lessons; the ability *to analyze* instruction using a phenomenological model of inquiry; and the ability *to evaluate* content in terms of appropriate modes of instruction. Inherent in these attributes is a belief that the essence of education is knowledge and skills, which once acquired can be applied to improve education. While this role orientation may be appropriate for a group of teachers moving through an inservice teacher education program, it may not always be appropriate in a secondary school classroom. There are times when the student role orientation should be the "Public Man" where the essence of education is growth and where the key to learning is decision making based on the reconstruction of experience. There are times when the orientation should be the "personal man" where the essence of education is choice, and where students are required to become responsible choice makers throughout their schooling.

If a test instrument truly reflects the objectives it purports to measure, analysis based on the behavioral attributes of *program objectives* would be another way of determining a program's student role orientation. Compare the above behavioral attributes required of the test items with the behavioral attributes required of their corresponding objectives. (See pp. 117-118)

b. Domains of Response

The same approach used in determining student role orientation can be used to determine domains of response. For the purposes of analysis, responses can be categorized in the cognitive, skill, and affective domains. You have already determined that the test items used on pp.113-116 require a role orientation characterized by behavioral attributes associated with the "scholarly investigating man." In the activity which follows you will analyze specific test items to determine the cognitive and skill domains used in *Perspectives*.

Directions: In the following activity analyze the domains of response called for by the various test items. Because the test items are from a cognitive evaluation instrument, the checklist opposite the test items will require a choice from the cognitive domain, the skill domain, or possibly from both. Check the appropriate categories opposite each of the four test items taken from pp. 113-116.

	Domains of Response	
	Cognitive	Skill
Item 3 Assume you wanted to *teach the concept* "Separation of . Powers" . . . Suggest a sequence of generic questions following the three tasks *suggested by Taba*.		
Item 7 The three methods of approaching values suggested in *Perspectives* are listed below. *Describe* two possible dangers or problems of using each, based on the unique nature of each teaching model. (Discrepant Data Approach, Controversial Issues Approach, Open-ended Approach).		
Item 9 *Use* the Suchman Model of Inquiry to *discuss* the followign episode . . .		
Item 10 Simulation games contain the following components. (*Illustrate each of the components* with examples from the Game of Farming.		

Each of the test items deals with different models of instruction and the ability to answer the items depends on the participant's cognitive knowledge of the instructional models. Items 3 and 9, however, require enough familiarity with the models to apply them using examples the participants have not encountered before. In Item 3 the skill of sequencing questions and designing

a concept-based lesson is
participant is forced to analy
a cybernetic model of
demonstrate the interrelatedn
domains, and although they
on the part of the participan
beliefs and attitudes.

c. **Levels of Thought**

Of the four test items cr
Response" Item 3 and 9
thought than either Item
Questions: What Kinds? Sa
question moves from one leve
it will embody each of the th

Directions: The test item
highest level of thinki
you have been worki
ing processes you use
check "Yes" or "No,"
processes were used
suggested by Sanders.

Item 12:

Following are themes wh
11th grade American history
list of teaching methods. P
teaching method for each t
space after the theme provide
your answer.

(1) Not all the signers of the Declaration of Independence were men of sterling character. Rationale: ______

______

(2) The historiography of the Revolutionary War Era.
Rationale: ______

______

(Conti

Because the test items are from a cognitive ion instrument, the checklist opposite the ms will require a choice from the cognitive , the skill domain, or possibly from both. the appropriate categories opposite each of r test items taken from pp. 113-116.

Domains of Response

Cognitive	Skill

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es from

e test items deals with different models of d the ability to answer the items de- participant's cognitive knowledge of the nodels. Items 3 and 9, however, require rity with the models to apply them using participants have not encountered before. skill of sequencing questions and designing a concept-based lesson is examined. In Item 9 the participant is forced to analyze a teaching sequence using a cybernetic model of analysis. The test items demonstrate the interrelatedness of the cognitive and skill domains, and although they imply attitudes and beliefs on the part of the participant, they do not measure these beliefs and attitudes.

c. Levels of Thought

Of the four test items created above in "Domains of Response" Item 3 and 9 required considerably more thought than either Item 7 or 10. In *Classroom Questions: What Kinds?* Sanders suggests that as a question moves from one level of complexity to the next, it will embody each of the thought levels below it.

Directions: The test item which follows requires the highest level of thinking used in the cognitive test you have been working with. Analyze the thinking processes you used in answering Item 12 and check "Yes" or "No," depending on whether the processes were used according to the categories suggested by Sanders.

Item 12:

Following are themes which might be treated in an 11th grade American history class and beside them a list of teaching methods. Place the most appropriate teaching method for each theme in the blank. In the space after the theme provide a one-sentence rationale for your answer.

(1) Not all the signers of the Declaration of Independence were men of sterling character. Rationale: __________

____

(2) The historiography of the Revolutionary War Era. Rationale: ______________

____

- Lecture
- Discrepant Data
- Class Discussion
- Individual Research Project
- Role Playing
- Simulation
- Problem Solving Approach
- Small Group Discussion

(Continued)

(3) The forces, factors, and frustrations which make any revolution a political reality. Rationale: ______________

____

(4) The underlying and immediate causes of the Revolutionary War. Rationale: __________

____

(5) The state of medical technology at the outbreak of the Civil War. Rationale: _________

____

(6) Is war ever justified? Rationale: _____________

____

Thought Processes Required of You in Answering Item 12:

- **Memory**: An individual recalls or recognizes information.
- **Translation**: An individual changes information into a different symbol for our language.
- **Interpretation**: An individual discovers relationships among facts, generalizations, definitions, values and skills.
- **Application**: An individual solves a lifelike problem that requires the identification of an issue and the selection and uses of appropriate generalization.
- **Analysis**: An individual solves a problem in the light of conscious knowledge of the parts and forms of thinking.
- **Synthesis**: An individual solves a problem that requires original, creative thinking.
- **Evaluation**: An individual makes a judgment of good or bad, right or wrong, according to the standards he designates.

Yes	No

It would be easy to demo
required at minimum the first
the Sanders scale. *Analysis* mig
participants are matching con
therefore making decisions on
or deductive methods to teach
is done with a conscious kn
thinking, the test item would
and *evaluation* were probably n
went beyond what was treate
justified their *original* insight
the answer. Analysis and syn
designed into either the objecti

2. Tests should measure the which objectives are achi

Test items should mirror the
measure. Although not all instru
measured by written tests, the ite
tests should parallel the objectives
Some test items can measure mor
each objective should be tested.

Directions: Reread the exami
the cognitive objectives,
right hand column below,
objectives are measured by
item measures more tha
primary objective first.

Objective
1
2
3
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ctors, and
hich make any rev-
ical reality.
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Revolutionary
e: __________
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edical technology
k of the Civil
e: __________
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tified?
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Required of You in Answering Item 12:

	Yes	No
ual recalls or ion.		
ividual changes ifferent symbol		
ndividual ps among s, definitions,		
ividual solves at requires the issue and the f appropriate		
ual solves t of conscious rts and forms		
dual solves res original,		
vidual makes a bad, right or the standards		

It would be easy to demonstrate that the test item required at minimum the first four levels of thought on the Sanders scale. *Analysis* might also be required because participants are matching content and method and are therefore making decisions on whether to use inductive or deductive methods to teach the various themes. If this is done with a conscious knowledge of the forms of thinking, the test item would require analysis. *Synthesis* and *evaluation* were probably not used unless participants went beyond what was treated in *Perspectives* and then justified their *original* insight in the rationale section of the answer. Analysis and synthesis, however, were not designed into either the objective or the test item.

2. Tests should measure the degree to which objectives are achieved.

Test items should mirror the objectives they purport to measure. Although not all instructional objectives can be measured by written tests, the items which are included in tests should parallel the objectives they intend to measure. Some test items can measure more than one objective, but each objective should be tested.

Directions: Reread the examination, pp. 113-116, and the cognitive objectives, pp. 117-118, and then in the right hand column below, indicate which objective or objectives are measured by each item. When the test item measures more than one objective, list the primary objective first.

Objective	**Test Item**
1	_______ 1
2	_______ 2
3	_______ 3
4	_______ 4
5	_______ 5
6	_______ 6
7	_______ 7
8	_______ 8
9	_______ 9
10	______ 10
11	______ 11
12	______ 12
13	
14	
15	

It is apparent that the objectives were measured by the evaluation instrument with the possible exception of objectives No. 14 and No. 15 which were not treated prior to the test. *Compare* your answers with the ones that follow. (The test item mentioned in the first column on the right has the major responsibility for measuring its designated objective.)

Objective	**Test Item**	
1	1	8
2	2	1
3	2	
4	3	7
5	4	5
6	5	4
7	6	12
8	7	12
9	8	12
10	9	
11	10	12
12	11	1
13	12	1 3 6 7 8 10
14		
15	Both are being tested at this time.	

3. Test items should be properly designed.

Effective thinking will not be encouraged by trick questions or by other manifestations of poor test construction. Irrelevant clues, in which one test item will supply the answer to another, are the most common example of poor test design. Other clues exist when a correct response is longer than the other alternatives, or where a patterned keying of answers is obvious to the test taker. Items which contain irrelevant clues or items which can be answered from the context of the question rather than the application of knowledge will seldom reinforce the type of behavior that teachers expect from their instructional program.

If a test designer was asked to choose between test validity and test reliability he would probably choose the former, for if the ideas being evaluated are not valid any concern for test reliability would be wasted effort. The activities dealing with "objectives as rules for test

construction" and "the match b
items" were mainly concerned wit
question, "Does the test measure
it to measure?" "Avoiding poor
concerned with test reliability an
does the test measure what it ac
self-administered cognitive test p
poor test construction.

Directions: The test items wh
the cognitive test (see pp.1
taken. The three example
areas of faulty test constru
following each example to
good test construction tha

Example 1 (Test Item 2 and 1)

Item **Part** Rewrite the objective in a
2 b level thinking.

"During a thirty minu
to correctly label by
outlined on an ot
continental United Sta

Item **Part** Analyze the following
1 b appropriate category of "l
1. Information "S
m
2. Interpretation p
fr
3. Application o
w
a
n

In what way would Item 2 clue pa
for Item 1. ____________

____

____

Example 2 (Test Item 5)

Item **Parts** Using Parsons' Guided Se
5 a-d situation where the teache
according to the designate
"England was sympathetic
free the slaves."

hat the objectives were measured by the
ent with the possible exception of
nd No. 15 which were not treated prior to
your answers with the ones that follow.
tioned in the first column on the right has
nsibility for measuring its designated

	Test	Item
....	1	8
....	2	1
....	2	
....	3	7
....	4	5
....	5	4
....	6	12
....	7	12
....	8	12
....	9	
....	10	12
....	11	1
....	12	1 3 6 7 8 10
....		
.... Both are being tested at this time.		

uld be gned.

ing will not be encouraged by trick
other manifestations of poor test
vant clues, in which one test item will
o another, are the most common example
Other clues exist when a correct response
other alternatives, or where a patterned
s obvious to the test taker. Items which
ues or items which can be answered from
question rather than the application of
lom reinforce the type of behavior that
n their instructional program.

er was asked to choose between test
liability he would probably choose the
ideas being evaluated are not valid any
eliability would be wasted effort. The
with "objectives as rules for test construction" and "the match between objectives and test items" were mainly concerned with validity and answered the question, "Does the test measure what the designer intended it to measure?" "Avoiding poor test construction" will be concerned with test reliability and the question, "How well does the test measure what it actually does measure?" The self-administered cognitive test provides several examples of poor test construction.

Directions: The test items which follow are taken from the cognitive test (see pp.113-116) you have already taken. The three examples will demonstrate different areas of faulty test construction. Answer the question following each example to determine the principle of good test construction that has been violated.

Example 1 (Test Item 2 and 1)

Item 2 Part b Rewrite the objective in a form that would require higher level thinking.

"During a thirty minute quiz the student will be able to correctly label by name 40 out of the 49 states outlined on an otherwise blank map of the continental United States"

Item 1 Part b Analyze the following objective by checking the appropriate category of "levels of thought."

1. Information
2. Interpretation
3. Application

"Students will be able to match, from a list of ten prominent historians and from a corresponding list of ten of their principal works, the appropriate authors and titles, missing no more than two."

In what way would Item 2 clue participants to the correct answer for Item 1. ______________________________

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Example 2 (Test Item 5)

Item 5 Parts a-d Using Parsons' Guided Self-Analysis System, role play a situation where the teacher responds to a student remark according to the designated response categories. Student: "England was sympathetic because Lincoln wanted to free the slaves."

a. Teacher A (closure)   c. Teacher C (verbal reward)
b. Teacher B (sustaining)   d. Teacher D (extending)

Could this question be answered without being familiar with Parsons' System? In what way? ____________________

____

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Example 3 (Test Item 12)

Item **Part** Following are themes which might be treated in an 11th
12 **a-f** grade American history class. Circle the letter (e.g., lecture, discrepant data, class discussion, etc.) of the most appropriate teaching method for each. In the space to the right of the alternative, provide a one sentence rationale for your answer.

a. Not all the signers of the Declaration of Independence were men of sterling character.
b. The historiography of the Revolutionary War Era.
c. The forces, factors, and frustrations which make any revolution a political reality.
d. The underlying and immediate causes of the Revolutionary War.
e. The state of medical technology at the outbreak of the Civil War.
f. Is killing ever justified?

If you were grading this test item, how would you assess the answers? (What dangers are inherent in this type of question?)

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B. How Tests are Analyzed

If test items are linked to educational objectives, a great deal of thought will go into an evaluation instrument before it is ever administered to a group of students. Throughout *Perspectives* only informational objectives have been used, for it's the author's belief that the knowledge required to write specific planning objectives is the same knowledge required to write good test items. This does not deny the

importance of assessing student
prescribed criteria and determini
under which the behavior will b
question of how closely the teac
objectives once they are writt
actually constructed, it makes
conditions around which a test
against which these items wi
adherence to pre-tutorial obj
importance of the intuitive fe
throughout the instructional proc
of crystal ball that will indicate, h
epidemic might occur, a film migh
might go awry. It would make be
approach to behavioral objectiv
completion of an instructiona
objectives into a format suitable fo

In the pages that follow y
cognitive test. Although the auth
over a self-administered test it is a
book examination lasting appro
point totals on the various items
scale to indicate the relative impo
simplify the computations associa
totals for each item also indicate
each item and they simplify th
with scoring. The point totals for
difficulty of the items based on
requires. As a rule of thumb, less
of the items would suggest that
handbook materials would be i
reporting system would be p
administered in sufficient numbers
be established.

Examination - Per
(Test Analys

Directions: Compare the answers written
113-116 with the answers provided be

(Continued)

er A (closure)   c. Teacher C (verbal reward)
er B (sustaining)   d. Teacher D (extending)

ion be answered without being familiar with In what way? ______________________

____

____

12)

are themes which might be treated in an 11th erican history class. Circle the letter (e.g., crepant data, class discussion, etc.) of the most e teaching method for each. In the space to the e alternative, provide a one sentence rationale nswer.

all the signers of the Declaration of ndence were men of sterling character.

toriography of the Revolutionary War Era.

rces, factors, and frustrations which make any ion a political reality.

nderlying and immediate causes of the tionary War.

ate of medical technology at the outbreak of il War.

g ever justified?

ing this test item, how would you assess the ngers are inherent in this type of question?)

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inked to educational objectives, a great o into an evaluation instrument before d to a group of students. Throughout ormational objectives have been used, belief that the knowledge required to ng objectives is the same knowledge od test items. This does not deny the importance of assessing students' entering behavior against prescribed criteria and determining in advance the conditions under which the behavior will be carried out. It is more a question of how closely the teacher should be tied to these objectives once they are written. Before test items are actually constructed, it makes little sense to specify the conditions around which a test will be taken or the criteria against which these items will be measured. A blind adherence to pre-tutorial objectives would deny the importance of the intuitive feedback a teacher receives throughout the instructional process. No teacher has the type of crystal ball that will indicate, before instruction, that a flu epidemic might occur, a film might not arrive, or a simulation might go awry. It would make better sense to take a flexible approach to behavioral objectives and sit down near the completion of an instructional unit and re-write the objectives into a format suitable for evaluation.

In the pages that follow you will correct your own cognitive test. Although the author has little actual control over a self-administered test it is assumed that it was a closed book examination lasting approximately 60 minutes. The point totals on the various items are based on a 100 point scale to indicate the relative importance of each item and to simplify the computations associated with scoring. The point totals for each item also indicate the relative importance of each item and they simplify the computations associated with scoring. The point totals for each item also indicate the difficulty of the items based on the levels of thought each requires. As a rule of thumb, less than 80% accuracy on any of the items would suggest that a review of the pertinent handbook materials would be in order. A more precise reporting system would be possible if the test was administered in sufficient numbers so that group norms could be established.

Examination - Perspectives (Test Analysis)

Directions: Compare the answers written in your test taken on pp. 113-116 with the answers provided below. The analysis for each

(Continued)

test item will consist of objectives, specimen answers, and explanatory notes.

(a) The objectives will define what is expected of each test item.

(b) The prototype answers will indicate a model of presentation.

(c) The notes will explore the range of possible answers and the author's rationale for scoring.

Short specimen answers will bear asterisks; longer specimen answers will be in italics. Correct the test with a check for incorrect answers and note in the margins any material for the handbook that should be reviewed. Also, note in the margins any test items that appear to be misleading, unfair, or poorly constructed.

Item 1.

a. *Objective No. 1* (See pp. 117-118)
Participants will be provided examples of performance-based objectives and be required to categorize the objectives according to the following classification: Student Role Orientation; Levels of Thought; Domains of Response and Structure.

b. Specimen Answers (Test Item 1)
Analyze the following objective by checking the appropriate category of student role orientation, levels of thought, domains of response and structure characterized by the objective. (8 pts.)

Students will be able to match, from a list of ten prominent historians and from a corresponding list of ten of their principal works, the appropriate authors and titles, missing no more than two.

- Student Role Orientation
  *(1) _____ The Scholarly Man
  (2) _____ The Public Man
  (3) _____ The Personal Man
- Levels of Thought
  *(1) _____ Information
  (2) _____ Interpretation
  (3) _____ Application
- Domains of Response
  *(1) _____ Cognitive Domain
  (2) _____ Affective Domain
  (3) _____ Social Studies Skills
- Structure
  (1) _____ General
  (2) _____ Informational
  *(3) _____ Planning

c. Notes on Item 1: In an item like this the answers are objective in that there is little room for differences of opinion. The

subtlety between the four classificati
through more subjective test items.

Item 2.

a: *Objective No. 2 and No. 3*
Participants will be provided examp
objectives and will be required to t
into test items that measure their inte
Participants will be provided exa
information or knowledge level and b
objectives into objectives that requ
processes as outlined in the tax
objectives.

b. Specimen Answers (Test Item 2)
Read the specimen objective and
required of the directions that follow
minute quiz the student will be able
40 out of the 49 states outlined on a
the continental United States.

- Transform the objective into
measure the objective.

You have 30 minutes and a blank
United States. Label as many of the 4
can.

- Rewrite the objective into a
higher level thinking.

Use the concept "region" to group th
your answers four regional groupings a
label and two or three attributes
classifications you establish.

c. Notes on Item 2: The test item is n
than specific answers so the wordi
answer. A planning objective sets
construction so test items should do
Any test item that requires more thar
should be accepted for item 2-b (Rev
system if in doubt).

Item 3.

a. Objective No. 4
Participants will be provided a familiar
the subject-matter content suitable
They will demonstrate their ability t
by sequencing them according to t
outlined in the Taba model.

b. Specimen Answers (Test Item 3)
Assume you wanted to teach the c
powers as part of a unit on federalism

(Continued)

of objectives, specimen answers, and
define what is expected of each test
nswers will indicate a model of
re the range of possible answers and the
r scoring.
bear asterisks; longer specimen answers
test with a check for incorrect answers
material for the handbook that should
he margins any test items that appear to
rly constructed.

117-118)
vided examples of performance-based
d to categorize the objectives according
ation: Student Role Orientation; Levels
Response and Structure.
Item 1)
objective by checking the appropriate
orientation, levels of thought, domains
re characterized by the objective. (8

to match, from a list of ten prominent
a corresponding list of ten of their
appropriate authors and titles, missing

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holarly Man
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Studies Skills

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item like this the answers are objective
room for differences of opinion. The

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subtlety between the four classification systems will be explored through more subjective test items.

Item 2.

a. *Objective No. 2 and No. 3*

Participants will be provided examples of performance-based objectives and will be required to transform these objectives into test items that measure their intended behaviors.

Participants will be provided examples of objectives at the information or knowledge level and be required to rewrite those objectives into objectives that require higher level thought processes as outlined in the taxonomies of educational objectives.

b. Specimen Answers (Test Item 2)

Read the specimen objective and complete the operations required of the directions that follow it. (6 pts.) During a thirty minute quiz the student will be able to correctly label by name 40 out of the 49 states outlined on an otherwise blank map of the continental United States.

- Transform the objective into a test item that would measure the objective.

You have 30 minutes and a blank map of the continental United States. Label as many of the 49 states on the map as you can.

- Rewrite the objective into a form that would require higher level thinking.

Use the concept "region" to group the various states. Include in your answers four regional groupings along with an approximate label and two or three attributes that describe the four classifications you establish.

c. Notes on Item 2: The test item is measuring processes rather than specific answers so the wording will vary with every answer. A planning objective sets the ground rules for construction so test items should do what the objective says. Any test item that requires more than simple memory or recall should be accepted for item 2-b (Review Sanders classification system if in doubt).

Item 3.

a. Objective No. 4

Participants will be provided a familiar social science concept and the subject-matter content suitable for teaching the concept. They will demonstrate their ability to write generic questions by sequencing them according to the three cognitive tasks outlined in the Taba model.

b. Specimen Answers (Test Item 3)

Assume you wanted to teach the concept of separation of powers as part of a unit on federalism in your civics class. The

(Continued)

content you plan to use is the following list of names:

Senator Henry Jackson
President Richard Nixon
Justice William O. Douglas
Governor Robert Ray
Representative Shirley Chisholm
Chief Justice Warren Burger
Mayor Richard Daley
Councilman James Blank

Suggest a sequence of generic questions following the three tasks suggested by Taba for teaching thought processes. (9 pts.)

a. Concept Formation
   - *(1) What do you see (note-observe) in the list on the board?*
   - *(2) What names go together? (belong together?) (on what criteria?)*
   - *(3) What would you call (label, name) these various groupings?*

b. Interpretation of Data
   - *(1) What prompted you to use labels of legislative, executive, and judicial?*
   - *(2) Why do you think the government is divided into three branches?*
   - *(3) In what way does the power of the legislative branch offset the power of the executive branch?*

c. Application of Principles
   - *(1) What would happen if the Supreme Court was stripped of its power?*
   - *(2) Why do you think this would happen? (provide evidence)*
   - *(3) What are your feelings about the statement "Power corrupts and absolute power corrupts absolutely?"*

c. Notes on Item 3: Any series of questions will be appropriate for this answer so long as the questions support the concept of separation of powers and are consistent with the intent of the cognitive tasks outlined by Taba. The Taba model should be a tool that helps teachers rather than a straitjacket that limits them.

Item 4.

a. Objective No. 5
Participants will be provided a list of question categories and a series of oral classroom questions. They will demonstrate their understanding of Parsons' schedule "A" by matching the category system to the questions.

b. Specimen Answers (Test Item 4) Match the various types of questions on the right with the letter of the correct designator on the left (6 pts.)

Question Types

a. Rhetorical
b. Information
c. Leading
d. Probing
e. Other

1. e or a Who back for 5
2. c Wha migh sugg any is a betw niqu food belie tices
3. a Shal with
4. b Wha abou in ou yeste
5. d Wha study tell u selve
6. c If le quick grou conc cond area was

c. Notes on Item 4: This is a fairly possibility of number 1 being a rheto was about relaxation and the question

Item 5.

a. Objective No. 6
Participants will be able to write each response categories following a hyp which would call for designated respon

b. Specimen Answers (Test Item 5)
Using Parsons' Guided Self-Analysi situation where the teacher responds to

(Continued)

use is the following list of names:
ackson
d Nixon
). Douglas
t Ray
hirley Chisholm
rren Burger
Daley
es Blank

of generic questions following the three Taba for teaching thought processes. (9 pts.)

mation

you see (note-observe) in the list on the

mes go together? (belong together?) (on teria?)

ould you call (label, name) these various s?

n of Data

ompted you to use labels of legislative, e, and judicial?

you think the government is divided into nches?

way does the power of the legislative branch e power of the executive branch?

of Principles

ould happen if the Supreme Court was of its power?

you think this would happen? (provide)

your feelings about the statement "Power and absolute power corrupts absolutely?"

y series of questions will be appropriate for as the questions support the concept of s and are consistent with the intent of the ned by Taba. The Taba model should be a chers rather than a straitjacket that limits

provided a list of question categories and a om questions. They will demonstrate their arsons' schedule "A" by matching the e questions.

(Test Item 4) Match the various types of t with the letter of the correct designator

---

Question Types

a. Rhetorical

b. Information

c. Leading

d. Probing

e. Other

1. e or a Who wants to sit back and relax for 5 minutes?
2. c What arguments might we offer to suggest that in any society there is a relationship between the techniques for obtaining food and religious beliefs and practices?
3. a Shall we go on with the lesson?
4. b What did we learn about Hopi religion in our discussion yesterday?
5. d What does the study of the Hopi tell us about ourselves?
6. c If leather rots quickly in moist ground what do you conclude about soil conditions in the area where the leather was discovered?

c. Notes on Item 4: This is a fairly clear cut answer with the possibility of number 1 being a rhetorical question if the lesson was about relaxation and the question required no answer.

Item 5.

a. Objective No. 6
Participants will be able to write each of Parsons' schedule "B" response categories following a hypothetical student remark which would call for designated responses.

b. Specimen Answers (Test Item 5)
Using Parsons' Guided Self-Analysis System, role play a situation where the teacher responds to a student remark

(Continued)

Student: "England was sympathetic because Lincoln wanted to free the slaves."

a. Teacher A (closure) *(No, Wrong, etc., or simply go on to another student.)*

b. Teacher B (sustaining) *(Could you give some examples? or spin on that answer?)*

c. Teacher C (verbal reward) *(Good, Fine, Very well, etc.)*

d. Teacher D (extending) *(Yes, but why would you say this? or Yes, but explain in your answer the fact that England needed cotton from the South.)*

c. Notes on Test Item 5: The test item is measuring patterns of response rather than specific responses so the wording can vary considerably. If the answer embodies the intent of each response category it is correct.

Item 6.

a. Objective No. 7

Participants would recognize the need for affective development on the part of students and be able to list worthwhile intellectual, public, and personal values.

b. Specimen Answers (Test Item 6)

An effective social studies program should enable students to develop certain intellectual, public, and personal values required of life in today's changing society. (9 pts.)

- List three of the intellectual values.
  (1) objectivity
  (2) multi-causality
  (3) critical thinking
- List three of the public values.
  (1) concern for civil liberties
  (2) participation in public affairs
  (3) concern for civil rights
- List three of the personal values.
  (1) choice making
  (2) positive self concept
  (3) self fulfillment

c. Notes on Test Item 6: There is a wide range of answers for this item. Other examples of intellectual values might be scholarship, skepticism, and the scientific process. Other public values might be a positive attitude toward public debate, the worth and dignity of man, and the importance of democratic institutions. Other examples of personal values might be freedom to develop the human potential or the freedom of expression.

Item 7.

a. Objective No. 8

Participants will be provided the names of various approaches to values education and demonstrate their understanding of the

approach by listing weaknesses unique
b. Specimen Answer (Test Item 7)
The three methods of approachi
Perspectives are listed below. Describ
problems of using each based on the
each of the three approaches. (6 pts.)

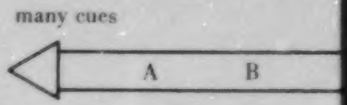
- *Discrepant Data Approach*
  (1) The teacher is vulnerab
  stereotype.
  (2) The approach may lead t
  clarification.
- *Controversial Issues Approach*
  (1) It's a conflict approach tha
  (2) It could be used to "put stu
- *Open-ended Approach*
  (1) It requires small groups.
  (2) Some issues are too private

c. Notes on Test Item 7: The arguments
long as they pertain to the unique nat
addition the following responses cou
approaches listed above: They all
approach may not be appropriate to
great deal of sensitivity on the part of t
open-ended approach.

Item 8.

a. Objective No. 9
Participants will be able to infer from
orientations of teachers, the type of
orientation and match the two using th
as criteria.

b. Specimen Answer (Test Item 8)
One of the characteristics of inquiry
provided by the teacher during a
continuum which follows there are th
and B and C. Choose the letter t
approximate position of the teacher w
student role orientations. (6 pts.)



- ___ The Scholarly Man (authority
  on the social sciences)
- ___ The Scholarly Man (as

(Continued)

nd was sympathetic because Lincoln
slaves."
osure) *(No, Wrong, etc., or simply go on to*
nt.)
staining) *(Could you give some examples?*
t answer?)
rbal reward) *(Good, Fine, Very well, etc.)*
xtending) *(Yes, but why would you say*
but explain in your answer the fact that
d cotton from the South.)
5: The test item is measuring patterns of
specific responses so the wording can vary
answer embodies the intent of each
correct.

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dents and be able to list worthwhile
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man, and the importance of democratic
xamples of personal values might be
the human potential or the freedom of

ovided the names of various approaches to
demonstrate their understanding of the

approach by listing weaknesses unique to each.

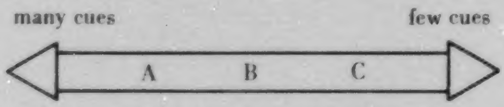
b. Specimen Answer (Test Item 7)
The three methods of approaching values suggested in *Perspectives* are listed below. Describe two possible dangers or problems of using each based on the unique nature implied in each of the three approaches. (6 pts.)
- *Discrepant Data Approach*
  (1) The teacher is vulnerable while reinforcing a stereotype.
  (2) The approach may lead to confusion rather than clarification.
- *Controversial Issues Approach*
  (1) It's a conflict approach that could get out of hand.
  (2) It could be used to "put students down."
- *Open-ended Approach*
  (1) It requires small groups.
  (2) Some issues are too private for discussion in class.

c. Notes on Test Item 7: The arguments need not be the same as long as they pertain to the unique nature of each approach. In addition the following responses could pertain to any of the approaches listed above: They all can be overused. The approach may not be appropriate to the issue. Each takes a great deal of sensitivity on the part of the teacher, especially the open-ended approach.

Item 8.

a. Objective No. 9
Participants will be able to infer from the various student role orientations of teachers, the type of inquiry implied in each orientation and match the two using the number of teacher cues as criteria.

b. Specimen Answer (Test Item 8)
One of the characteristics of inquiry is the number of cues provided by the teacher during a typical lesson. On the continuum which follows there are three points marked by A and B and C. Choose the letter that best represents the approximate position of the teacher when stressing the various student role orientations. (6 pts.)



- ____ The Scholarly Man (authority on the social sciences)
- ____ The Scholarly Man (as

(Continued)

investigator of his world)
- ____ The Public Man (as possessor of moral truth)
- ____ The Public Man (as decision maker)
- ____ The Personal Man (a. self-adjusted)
- ____ The Personal Man (as choice-maker)

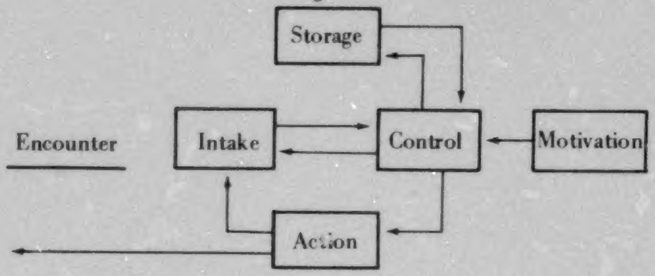
c. Notes on Test Item 8: The philosophies of education represented in the various role orientations would tend to cluster at the designated points on the continuum. The left end of the continuum would represent the Perennialist and to some extent the Essentialist positions. The central part of the continuum would represent the position advanced by advocates of the new social studies. This would represent both Essentialist and Progressive orientation. The Existentialist position would occupy the right hand portion of the continuum.

Item 9.

a. Objective No. 10
Participants will be provided an outline of the Suchman Model of Inquiry and a description of a teaching sequence. They will demonstrate an understanding of each component of the model by assuming the role of a student in the example and describing the process of inquiry the student goes through.

b. Specimen Answer (Test Item 9)
Use the Suchman Model of Inquiry to discuss the following episode. Because the model is an internal one, assume the role of one of the students in class and describe the thinking-learning-acting process that is going on as the result of Mrs. Smith's teaching. (12 pts.)

Figure 2



The children read *A Christmas Carol*. Mrs. Smith wants to know which children actually read the story and how much

they remember. She goes around
about the story. If a child ca
"wrong" answer, Mrs. Smith goes
- Encounter *The encounter wa*
read the night before.
- Intake *I used mainly the sen*
story.
- Storage *I have seen the story*
was going to end. I felt sorry f
- Motivation *I feel bad when I*
but I had more important th
story.
- Action *It would have been m*
the story.
- Control *I felt scared when the*
mind went blank and I couldn
kids didn't notice how red my

c. Notes on Test Item 9: The ans
hypothetical dialogue that describes
the six components of the Suchman
be correct as long as it describes the
each of the components of the model.

Item 10.

a. Objective No. 11
Participants will be provided an outlin
components of a simulation and f
appropriate examples from one of the
handbook.

b. Specimen Answers (Test Item 10)
Simulation games contain the followin
each of the components with exam
Farming.) (5 pts.)
- A Instructional Purpose and F
to be a successful farmer.
- An Environmental Model. *T*
function of factors like ch
technology, etc.
- Competition or Conflict. *Com*
the outcome cards for each yea
competes against himself.
- Roles. *The roles provided iden*
in the 1880's.
- Winner. *A winner was one wh*
who made money; and kept the

c. Notes on Test Item 10: The wording f

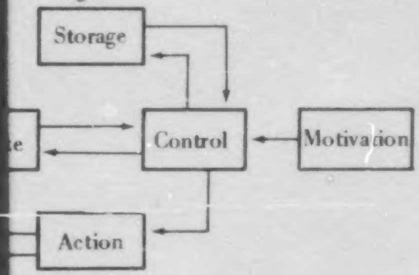
(Continued)

of his

Man (as pos-
oral truth)
Man (as de-
r)
l Man (as
l)
l Man (as
er)
m 8: The philosophies of education
arious role orientations would tend to
ed points on the continuum. The left end
ald represent the Perennialist and to some
st positions. The central part of the
resent the position advanced by advocates
ies. This would represent both Essentialist
tation. The Existentialist position would
portion of the continuum.

ovided an outline of the Suchman Model
ription of a teaching sequence. They will
standing of each component of the model
of a student in the example and describing
the student goes through.
t Item 9)
odel of Inquiry to discuss the following
model is an internal one, assume the role
tudents in class and describe the
g process that is going on as the result of
(12 pts.)

Figure 2



A Christmas Carol. Mrs. Smith wants to
ren actually read the story and how much

they remember. She goes around the room asking questions about the story. If a child cannot answer or has the "wrong" answer, Mrs. Smith goes to the next child.

- Encounter *The encounter was the story assigned to be read the night before.*
- Intake *I used mainly the sense of sight as I read the story.*
- Storage *I have seen the story on T.V. so I knew how it was going to end. I felt sorry for Tiny Tim.*
- Motivation *I feel bad when I can't please the teacher, but I had more important things to do than finish the story.*
- Action *It would have been more fun had we acted out the story.*
- Control *I felt scared when the teacher called on me. My mind went blank and I couldn't move. I hope the other kids didn't notice how red my face was.*

c. Notes on Test Item 9: The answer is suggestive of a hypothetical dialogue that describes the processes involved in the six components of the Suchman Model. Any dialogue will be correct as long as it describes the appropriate processes for each of the components of the model.

Item 10.

a. Objective No. 11
Participants will be provided an outline of the various structural components of a simulation and fill in the outline with appropriate examples from one of the simulations treated in the handbook.

b. Specimen Answers (Test Item 10)
Simulation games contain the following components. (Illustrate each of the components with examples from the Game of Farming.) (5 pts.)

- A Instructional Purpose and Focus. *To make a living, or to be a successful farmer.*
- An Environmental Model. *The game Outcome is a function of factors like choice, weather, markets, technology, etc.*
- Competition or Conflict. *Competition was provided in the outcome cards for each year. In the game the player competes against himself.*
- Roles. *The roles provided identify a reason for farming in the 1880's.*
- Winner. *A winner was one who survived as a farmer; who made money; and kept the farm in operation.*

c. Notes on Test Item 10: The wording for the various answers is

(Continued)

less important than a description of the five components of a simulation.

Item 11.

a. Objective No. 12

Participants will be able to describe appropriate teaching strategies according to the differing teacher roles required in the game introduction, in the actual game activity, and in the final game debriefing.

b. Specimen Answers (Test Item 11)

As students progress through a simulation game the teacher's role or teaching behavior will usually change. Describe the type of teaching behavior that might accompany the following stages of a simulation. (6 pts.)

- While introducing the game *A great deal of teacher direction is needed to explain rules, set the stage, and assign roles.*
- While the game is in play *The teacher should be as non-directive as possible, serving as trouble shooter and guide.*
- While debriefing the game *This will require considerable direction because debriefing is critical to understanding the underlying principles of any game.*

c. Notes on Test Item 11: Again the wording is less important than the fact that a teacher's role does change through the various stages of teaching a simulation.

Item 12

a. Objective No. 13

Participants will acquire and be able to demonstrate a repertoire of teaching strategies and be able to gear these strategies to different teaching themes and be able to defend these strategies in terms of sound teaching theory.

b. Specimen Answers (Test Item 12)

Following are themes which might be treated in an 11th grade American history class. Circle the letter of the most appropriate teaching method for each theme. In the space to the right of the alternatives provide a one sentence rationale for your answer. (18 pts.)

- Not all the signers of the Declaration of Independence were men of sterling character.

(1) Lecture	Rationale: *The*
*(2) Discrepant	*theme would pro-*
Data	*vide a good op-*
(3) Class Discussion	*portunity to shat-*
(4) Individual Re-	*ter some of the*
search Report	*folk myths about*
	our history.

- The historiography of the Revol

*(1) Lecture	Rational
(2) Discrepant	*students*
Data	*able to t*
(3) Role Playing	*type of*
(4) Individual Re-	*quired o*
search Report	*It would*
	siderable
	backgrou
	direction

- The forces, factors, and frustr revolution a political reality.

(1) Lecture	Rational
(2) Small Group	*is sort of*
Discussion	*universal*
*(3) Simulation	*of huma*
(4) Individual Re-	*that wou*
search Report	*simulatio*

- The underlying and imm Revolutionary War.

(1) Discrepant	Rational
Data	*covers su*
(2) Simulation	*topic tha*
*(3) Class Dis-	*or role p*
cussion	*not be ap*
(4) Role Playing	*Class dis*
	be appro

- The state of medical technology Civil War.

(1) Lecture	Rational
(2) Simulation	*a rather*
(3) Role Playing	*that migh*
* (4) Individual Re-	*handled*
port	*assignme*

- Is killing ever justified?

(1) Lecture	Rational
(2) Problem-Solving	*can be a*
Approach	*personal*
*(3) Small Group	*and coul*
Discussion	*handled i*
(4) Individual Re-	*group dis*
search Report	

c. Notes on Test Item 12: If a good ratio answer. This is a difficult item to grade but it is still valid in treating methodolog escription of the five components of a

ble to describe appropriate teaching e differing teacher roles required in the e actual game activity, and in the final

Item 11)

rough a simulation game the teacher's r will usually change. Describe the type t might accompany the following stages

g the game *A great deal of teacher ed to explain rules, set the stage, and*

is in play *The teacher should be as possible, serving as trouble shooter and*

the game *This will require considerable debriefing is critical to understanding inciples of any game.*

: Again the wording is less important acher's role does change through the a simulation.

nd be able to demonstrate a repertoire nd be able to gear these strategies to and be able to defend these strategies g theory.

Item 12)

hich might be treated in an 11th grade Circle the letter of the most appropriate theme. In the space to the right of the e sentence rationale for your answer.

s of the Declaration of Independence ing character.

on

Rationale: *The theme would provide a good opportunity to shatter some of the folk myths about our history.*

- The historiography of the Revolutionary War Era.
  - *(1) Lecture
  - (2) Discrepant Data
  - (3) Role Playing
  - (4) Individual Research Report

  Rationale: *Few students would be able to tackle the type of reading required of this theme. It would require considerable teacher background and direction.*
- The forces, factors, and frustrations which make any revolution a political reality.
  - (1) Lecture
  - (2) Small Group Discussion
  - *(3) Simulation
  - (4) Individual Research Report

  Rationale: *This is sort of a universal pattern of human behavior that would fit the simulation format.*
- The underlying and immediate cause of the Revolutionary War.
  - (1) Discrepant Data
  - (2) Simulation
  - *(3) Class Discussion
  - (4) Role Playing

  Rationale: *This covers such a broad topic that simulation or role playing might not be appropriate. Class discussion would be appropriate.*
- The state of medical technology at the outbreak of the Civil War.
  - (1) Lecture
  - (2) Simulation
  - (3) Role Playing
  - * (4) Individual Report

  Rationale: *This is a rather narrow topic that might best be handled by individual assignments.*
- Is killing ever justified?
  - (1) Lecture
  - (2) Problem-Solving Approach
  - *(3) Small Group Discussion
  - (4) Individual Research Report

  Rationale: *This can be a very personal issue and could be best handled in a small group discussion.*

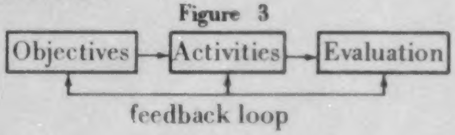
c. Notes on Test Item 12: If a good rationale is given, accept any answer. This is a difficult item to grade, because it is subjective but it is still valid in treating methodological perspectives.

The cognitive test analysis just concluded points up the importance of having performance-based criteria against which student behavior can be measured. The specimen answers, however, demonstrate the difficulty of judging answers on the author's part without the background experience of actually having taught the materials. In *Perspectives* the dialogue has been one-dimensional, which severely limits the respondent's vocabulary in answering the test questions. In spite of these limitations it is possible to determine which objectives have and have not been achieved. It is much more difficult, however, to determine why these objectives were or were not achieved. This question will be treated later in "Evaluation to Improve Instruction."

C. How Tests Can Be Used to Improve Instruction

Instruction is a system, but before it can operate as a system teachers must be able to segment instruction into component parts and come to terms with the relationships that tie the system together. The three components in the following model describe product evaluation centering on the student. If students fail on examinations, cause of failure can often be traced to program objectives, instructional activities, or the evaluation instruments themselves. The three components are

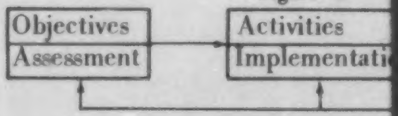
Figure 3



interrelated. Objectives mediate between the broadest aspirations of society and the behavior required of students on a day-to-day basis. Objectives, therefore, establish the criteria against which the success or failure of the other instructional components can be measured. Success or failure comes from how well the learning activities build on teacher, student, and curriculum variables to accomplish program objectives. Success or failure also
and sensitivity by which the evalu
program objectives.

The three components that
model suggest another dimension
Implementation, and Hidden Com
evaluation through which

Figure 4



a teacher constantly reviews
instructional procedures, and ev
evaluation the teacher develops
toward instruction. In that po
hypotheses about instruction and
teaching in light of his findings. A
of objectives and a process by wh
if the guidelines built into objecti
in student behavior, in program
teacher compatibility with
Implementation is a counterpart
used to determine if the teacher,
can orchestrate the various eleme
that optimal learning takes place.
instruction exist within the te
reflection of the experiences, bac
competency the teacher brings to
These hidden components point
teacher plays in the goal setting
instruction. As a counterpart of e
the empirical measurement of in
intuitive measurement. Intuitive
goes on constantly in the classroo
the basis for the decisions that d
educational objectives are translat
meaningful student behavior.

The components of instructio
determining reasons for failure are

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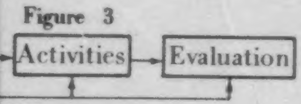
Figure 3



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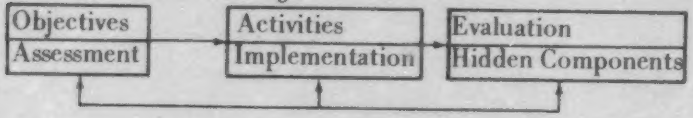
y and the behavior required of students
sis. Objectives, therefore, establish the
ch the success or failure of the other
nents can be measured. Success or failure
ll the learning activities build on teacher,
ulum variables to accomplish program

objectives. Success or failure also depends on the consistency and sensitivity by which the evaluation instruments measure program objectives.

The three components that are added in the following model suggest another dimension of evaluation. Assessment, Implementation, and Hidden Components constitute process evaluation through which

Figure 4



a teacher constantly reviews his educational planning, instructional procedures, and evaluation. Through process evaluation the teacher develops an experimental posture toward instruction. In that posture he makes and tests hypotheses about instruction and constantly re-evaluates his teaching in light of his findings. Assessment is a counterpart of objectives and a process by which the teacher determines if the guidelines built into objectives are, in fact, carried out in student behavior, in program implementation, and in teacher compatibility with the program's rationale. Implementation is a counterpart of activities and a process used to determine if the teacher, through his methodology, can orchestrate the various elements of curriculum to insure that optimal learning takes place. The hidden components of instruction exist within the teacher himself and are a reflection of the experiences, background, and professional competency the teacher brings to the instructional process. These hidden components point out the crucial point the teacher plays in the goal setting and goal maintenance of instruction. As a counterpart of evaluation they rely less on the empirical measurement of instruction and more on its intuitive measurement. Intuitive evaluation by the teacher goes on constantly in the classroom, and, to a large extent, is the basis for the decisions that determine the way in which educational objectives are translated through instruction into meaningful student behavior.

The components of instruction that will be considered in determining reasons for failure are listed as follows:

- Objectives
- Assessment
- Activities
- Implementation
- Evaluation
- Hidden Components

The series of questions based on these components will help to determine if the reason for student failure rests with either the instructional program or the teacher. If the cause of failure can be isolated, the teacher can modify or reject segments of instruction that caused the problem. On the other hand, if the teacher can find no fault with the six components as they were used, he can assign student grades with a clear conscience knowing that the reason for failure probably rests with the student himself. The focus of the question in the pages that follow will be on Part I of *Perspectives*. There is no way for the author to evaluate the effectiveness of his program because of the lack of data upon which to base that evaluation. Because of this the reader will be asked to assume the author's role and analyze the program. The "yes" or "no" format is used to simplify the reporting process, though more elaboration on each question would be needed if a comprehensive analysis was carried out.

Directions. You are to base your answers to the following questions on your own experience with *Perspectives*, but in the role of the author-evaluator who is concerned with improving the program. The questions which follow will probe the components of the instructional program as a way of determining its success or its failures. If elaborated on, these answers would illustrate the type of revision that would be needed to make the program better.

	Yes	*No*
1. *Objectives*		
a. Are the objectives consistent with the rationale of the program?		
b. Do the objectives have a logical sequence throughout, building on what went before and preparing for what follows?		
c. Do you have empirical evidence that students should be able to perform the behavior you expect of them?		

d. Do you have evidence that the criter
appropriate?
e. Do the objectives go beyond the c
"content" and demonstrate the appli
social science perspectives to persisten
educational problems?
f. Are the effective objectives of th
consistent with the principles of
education?

2. *Assessment*
a. Do the cognitive, skill, and affective
require the same range of behaviors def
program objectives?
b. Is the behavior required in the cog
affective evaluation valid in terms of the
skills, and attitudes necessary for today
c. Are the cognitive and affective
instruments reliable from one test admin
the next?
d. Do the evaluation instruments measure
behavior by discriminating, separating, a
according to significant differences
performance?
e. Are all students expected to succeed, a
way grades are reported maximize
learning in the classroom?

3. *Activities*
a. Do the activities teach what the objecti
b. Are there other activities that wo
accomplish instructional objectives?
c. Are the activities intellectually s
representative of the better curriculu
now available for use?
d. Is the concept of instructional activi
enough to capitalize on the creativity c
e. Do the questions posed in the activitie
vehicle for reaching higher levels of thou
such processes as inferring, generalizing
hypothesizing, synthesizing, and predicti
f. Do the activities allow the teacher to
the learning process when intervention
g. Are the activities responsive enou
conditions of learning to preve
intervention when intervention hinders l

(Continued)

on

onents

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gram or the teacher. If the cause of
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with improving the program. The
ch follow will probe the components of
nal program as a way of determining its
failures. If elaborated on, these answers
te the type of revision that would be
ke the program better.

Yes *No*

stent with the rationale of

ave a logical sequence
n what went before and
s?
l evidence that students
n the behavior you expect

Yes *No*

- d. Do you have evidence that the criteria level is appropriate?
- e. Do the objectives go beyond the coverage of "content" and demonstrate the applicability of social science perspectives to persistent social or educational problems?
- f. Are the effective objectives of the program consistent with the principles of democratic education?

2. *Assessment*
    - a. Do the cognitive, skill, and affective test items require the same range of behaviors defined in the program objectives?
    - b. Is the behavior required in the cognitive and affective evaluation valid in terms of the knowledge, skills, and attitudes necessary for today's society?
    - c. Are the cognitive and affective evaluation instruments reliable from one test administration to the next?
    - d. Do the evaluation instruments measure change in behavior by discriminating, separating, and grouping according to significant differences in student performance?
    - e. Are all students expected to succeed, and does the way grades are reported maximize successful learning in the classroom?
3. *Activities*
    - a. Do the activities teach what the objectives require?
    - b. Are there other activities that would better accomplish instructional objectives?
    - c. Are the activities intellectually sound and representative of the better curriculum materials now available for use?
    - d. Is the concept of instructional activity flexible enough to capitalize on the creativity of students?
    - e. Do the questions posed in the activities provide a vehicle for reaching higher levels of thought through such processes as inferring, generalizing, analyzing, hypothesizing, synthesizing, and predicting?
    - f. Do the activities allow the teacher to intervene in the learning process when intervention is required?
    - g. Are the activities responsive enough to the conditions of learning to prevent teacher intervention when intervention hinders learning?

(Continued)

4. *Implementation* *Yes* *No*
   a. Are students given enough practice throughout the instructional process to implement the course ideas on their own?
   b. Is the program implemented in such a way that it capitalizes on students' existing cognitive framework?
   c. Have you done everything you planned to do in the program?
   d. Is corrective action needed before students can proceed to the next instructional sequence?
   e. Does your teaching behavior change with groups of different size and ability?
   f. Are the conditions under which implementation takes place similar to the conditions students will face when they leave school?
5. *Evaluation*
   a. Do you engage in self-evaluation as readily as student evaluation to improve instruction?
   b. Do you evaluate students on significant factual information, and does your evaluation also measure higher-level thought processes?
   c. Do the objectives you evaluate include skill and attitude, as well as objectives from the cognitive domain?
   d. Is your evaluation systematic where weakness in one area of the curriculum suggests avenues of improvement in the other areas?
   e. Is evaluation of your short-range educational objectives supportive of the behavior you wish to accomplish in your long-range educational goals?
   f. Do you plan, teach, and evaluate what students already know?
6. *Hidden Components*
   a. Can you cope with a reality-based curriculum through issues that are sometimes emotional and that are often controversial?
   b. Can you exploit the subject matter disciplines in a way that raises the level of thinking in the classroom?
   c. Do your strategies support a climate of inquiry in the classroom which allows for student choice, but at the same time make students responsible for their own learning?
   d. Can you cope with a learning environment which raises more questions than it answers?
   e. Can you cope with a learning environment that tolerates uncertainty and change a
   condition of life?
   f. Are students treated as co-equals in the
   a way which promotes their worth as in
   g. Do the conditions of learning insu
   success, and fulfillment on the part of s
   h. Are students provided the opportunity
   and seek justification for the demand
   their time and energies?

Application

A. Application "A

The purpose of Application "A
normative test results can be use
instructional process. Throughout P
dealing with various aspects of instr
treated in Chapter I through evaluati
present chapter. If properly used,
which components of instruction ei
accomplishment of instructional o
pinpoint the components of instruc
failure" and the analysis of these com
improving instruction in the future
achieve objectives is attributed to the
"student failure" rests with the tea
program.

To demonstrate how evaluation
instruction Application "A" includes:

- The Development of a Model L
- An Analysis of the Measurin
  End of the Model Lesson.
- The Use of Evaluation to Impr

1. The Development o Model Lesson

a. **Teacher Goals**
   (1) Rationale

Yes No

ugh practice throughout the
implement the course ideas

ented in such a way that it
dents' existing cognitive

ing you planned to do in the

eeded before students can
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r short-range educational
f the behavior you wish to
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nd evaluate what students

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sial?
bject matter disciplines in a
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port a climate of inquiry in
ows for student choice, but
tudents responsible for their

earning environment which
an it answers?
learning environment that

Yes No

tolerates uncertainty and change as a natural condition of life?

f. Are students treated as co-equals in the classroom in a way which promotes their worth as individuals?

g. Do the conditions of learning insure security, success, and fulfillment on the part of students?

h. Are students provided the opportunity to question and seek justification for the demands placed on their time and energies?

Application

A. Application "A"

The purpose of Application "A" is to demonstrate how normative test results can be used to evaluate the entire instructional process. Throughout *Perspectives* you have been dealing with various aspects of instruction from the objectives treated in Chapter I through evaluation which is the focus of the present chapter. If properly used, evaluation can determine which components of instruction either aided or hindered the accomplishment of instructional objectives. Evaluation can pinpoint the components of instruction that caused "student failure" and the analysis of these components can be the basis for improving instruction in the future. All too often failure to achieve objectives is attributed to the student. Far too often the "student failure" rests with the teacher and his instructional program.

To demonstrate how evaluation can be used to improve instruction Application "A" includes:

- The Development of a Model Lesson.
- An Analysis of the Measuring Instruments Used at the End of the Model Lesson.
- The Use of Evaluation to Improve Instruction.

1. The Development of a Model Lesson

a. **Teacher Goals**
(1) Rationale

In global terms, students should think more critically, be more responsible for the choices they make, be better able to use knowledge to insure survival, and be better able to utilize concepts from the social studies as a way of understanding and shaping culture. The man-land relationships is an important perspective from the social sciences. Students should realize that cultural uniqueness is determined to a great extent by the geographic environment of which man is a part. An understanding of the man-land relationship should bring with it an awareness of the attributes that make man human, and, in turn, an increased willingness to recognize the humanness of others.

(2) Focus

The teacher will use comparison and contrast between two cultures as the criteria to demonstrate the impact of environment on culture. The materials will indicate that technology is one of the ways man can insure his survival. The student will understand technology as one of the many tools that help man survive in his hostile environment.

b. **Objectives of the Lesson**

(1) Cognitive Objective

At the conclusion of the activity and when provided with different environmental settings, the student will be able to determine the degree to which technology is functional and disfunctional and when probing the relationship between the environment and technology, be able to apply the related concepts of tool, resource, structure, and function. Success will be determined on the students' ability to accumulate 4 out of 5 points assigned to each of the seven items on the cognitive test.

(2) Affective Objectives

At a time shortly after the conclusion of the activity the student will, in the course of writing about a culture that is different from his own, demonstrate an empathy for the culture and judge it from standards relative to the culture being studied, rather than from the standards of the student's

culture. In his answers, the
culture, however it diffe
human.

c. **Instructional Procedure:**
Instructional Sequence for a Fi

DAY ONE

a. *Teaching Strategy*
The teaching strategy would consist of a dis
stereotype to be shattered is that "technol
have a technology superior to those of les
world.

b. *Instructional Sequence*
(1) Reinforcement of the stereotype: In th
will be given a set of six pictures repre
resources that go into making an Eskim
portray six large fish, several sets of a
tent skin. Students will be asked to
construction, and in groups of three o
from the materials in the pictures. On
and illustrated on paper, each group w
the class and discuss its merits.
(2) Discrepant data: After all the sled rep
will be shown the film, "Autumn Rive
A Course of Study. The film demo
actually constructs the sleds he uses. T
the Eskimo's knowledge of the properti
allows him to construct a sled whic
developed in class.
(3) Forming a new generalization: A shor
exercise would center around the follow
- Were any of you surprised by
demonstrated in sled making?
- Why were you surprised?
- What did you think of the resource
sled?
- What accounts for the difference
resources and the way the Eskimo u
- How does the Eskimo's technology
- How does your technology help you
- Could you say that the technology
to the technology of another?

*The picture taken from The Data Book
Cards from Man: A Course of Study - Educa
Center, Cambridge, Mass. 1970.

erms, students should think more
ore responsible for the choices they
r able to use knowledge to insure
better able to utilize concepts from
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ationship between the environment
be able to apply the related concepts
, structure, and function. Success will
n the students' ability to accumulate
s assigned to each of the seven items
test.

ives

shortly after the conclusion of the
dent will, in the course of writing
that is different from his own,
empathy for the culture and judge it
relative to the culture being studied,
m the standards of the student's

culture. In his answers, the student will recognize that culture, however it differs, is what makes man human.

c. **Instructional Procedure: Teaching Strategy and Instructional Sequence for a Five Day Period**

DAY ONE

a. *Teaching Strategy*

The teaching strategy would consist of a discrepant data approach. The stereotype to be shattered is that "technologically advanced" cultures have a technology superior to those of less developed cultures of the world.

b. *Instructional Sequence*

(1) Reinforcement of the stereotype: In the initial encounter students will be given a set of six pictures representing each of the physical resources that go into making an Eskimo Sled.* The pictures will portray six large fish, several sets of antlers, moss, thongs, and a tent skin. Students will be asked to use their knowledge of construction, and in groups of three or four, to construct a sled from the materials in the pictures. Once the sleds were designed and illustrated on paper, each group would present the design to the class and discuss its merits.

(2) Discrepant data: After all the sled reports are given the students will be shown the film, "Autumn River Camp, Part II" from *Man: A Course of Study*. The film demonstrates how the Eskimo actually constructs the sleds he uses. The film demonstrates how the Eskimo's knowledge of the properties of the various resources allows him to construct a sled which is far superior to any developed in class.

(3) Forming a new generalization: A short discussion debriefing the exercise would center around the following questions:
- Were any of you surprised by the ability the Eskimo demonstrated in sled making?
- Why were you surprised?
- What did you think of the resources provided for building the sled?
- What accounts for the difference in the way you used the resources and the way the Eskimo used them?
- How does the Eskimo's technology help him survive?
- How does your technology help you survive?
- Could you say that the technology for one culture is superior to the technology of another?

*The picture taken from The Data Book: A Guide to the Eskimo Cards from Man: A Course of Study - Educational Book Development Center, Cambridge, Mass. 1970.

DAY TWO

a. *Teaching Strategy*

The teaching strategy would consist of a class discussion based on the comparison of various types of tools. The concepts-environment, resources technology, and structure and function would be treated as part of the discussion.

b. *Instructional Sequence*

(1) Developing Concepts: As part of the class assignment students will be asked to bring to class a unique tool from home. The initial discussion will be student-centered as they attempt to determine the nature of the tools on display. Following this introduction the teacher would ask the following questions:

- Which of the tools seem to go together?
- Why would you group them this way?
- What would you call the groups you have formed?
- What other tools not on display would fit into these categories?
- What are the attributes of the categories you have labeled?

(2) Inferring and Generalizing

- In what way would the sled you constructed earlier be considered a tool?
- How is it similar to the tools on display? How is it different?
- If you were all graded on the sleds you made on a scale of "A" to "F" what grade would you receive?
- Why was the Eskimo able to make a better sled than you were?
- How do tools reflect the environment that produces them?
- In what way does tool-making involve both physical and human resources?
- Watch the "Autumn River Camp" film again and determine from it as much as you can about the culture of the Eskimo.
- In what way would the Eskimo language be a tool?
- As well as technological tools, what economic, social, and political tools were used by the Eskimo?

DAY THREE

a. *Teaching Strategy*

The teaching strategy would complete th
Taba model by requiring students to
previously learned. The strategy would
which required the application of t
resources, technology, structure and f
conclude with a class discussion over the a

b. *Instructional Sequence*

(1) Applying Generalizations: Students
each group is provided a metal coat h
construct as many tools as possible fro
the functions the tools will serve.

(2) Making applications: After the grou
tools and their functions the followi
debrief the activity:

- How would you grade the tools yo
- How are the tools you constru
environment?
- How did you learn to make these t
- From the list of functions the to
about your own values? (what you
- What properties of the coat hange
various tools?
- What would happen if our cu
knowledge of metal?
- What makes you think this would h
- Are there other hypotheses about w
- Based on these discussions what
technology and culture?

Y TWO

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of tools. The concepts-environment,
ture and function would be treated as

rt of the class assignment students will
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the categories you have labeled?

he sled you constructed earlier be

ols on display? How is it different?
the sleds you made on a scale of "A"
you receive?
to make a better sled than you were?
nvironment that produces them?
-making involve both physical and

er Camp" film again and determine
n about the culture of the Eskimo.
kimo language be a tool?
tools, what economic, social, and
y the Eskimo?

DAY THREE

a. *Teaching Strategy*

The teaching strategy would complete the third cognitive task of the Taba model by requiring students to apply the generalizations previously learned. The strategy would consist of a student activity which required the application of the concepts: environment, resources, technology, structure and function. The period would conclude with a class discussion over the activity.

b. *Instructional Sequence*

(1) Applying Generalizations: Students are divided into groups and each group is provided a metal coat hanger. Each group is asked to construct as many tools as possible from the coat hanger and to list the functions the tools will serve.

(2) Making applications: After the groups report on the variety of tools and their functions the following questions will be used to debrief the activity:

- How would you grade the tools you constructed?
- How are the tools you constructed a reflection of your environment?
- How did you learn to make these tools?
- From the list of functions the tools serve what can you say about your own values? (what you think is important.)
- What properties of the coat hanger allowed you to make these various tools?
- What would happen if our cultural heritage lacked any knowledge of metal?
- What makes you think this would happen?
- Are there other hypotheses about what might happen?
- Based on these discussions what is the relationship between technology and culture?

DAY FOUR

a. *Teaching Strategy*

A 30-minute period devoted to cognitive evaluation.

b. *Instructional Sequence*

The test which follows concludes the cognitive instruction of the prototype-learning activity. To better understand the impact of the test assume you were a student involved in the sequence and take the test based on what you have learned from instructional components already described.

Cognitive Test

Directions: You will have 30 minutes to complete the following test. Each of the test items will be worth 5 points. The 7 items together will make a total of 35 points for the entire test.

(1) Assume you are commander of a space ship that has crash-landed on the moon. Your survival depends on reaching Moon Base 100 miles away and on how well you utilize the few resources available after the crash. Rank order from most to least important the survival value of the items that remain intact after the crash. (In the spaces before each statement place No. 1 for the most important item through to No. 7 for the least important item.)*

____ A compact gas-heating unit with matches
____ A two-day supply of concentrated food
____ A rifle and several clips of ammunition
____ A two-gallon container of water
____ A climbing hook and attached rope
____ A magnetic compass
____ A two-day supply of oxygen

(2) Assume you are facing the same dilemma as in the first situation given above, but this time you crash-landed on the polar icecap, 100 miles from a missile defense installation. Rank order from most to least important the survival value of the same seven items.

____ A compact gas-heating unit with matches
____ A two-day supply of concentrated food
____ A rifle and several clips of ammunition
____ A two-gallon container of water
____ A climbing hook and attached rope
____ A magnetic compass
____ A two-day supply of oxygen

(3) The ability of a crash victim to survive on the lunar surface would involve all but one of the following factors: (Circle the statement that does *not* apply).

- The ability to use technolo
- The ability to create tec
found in the lunar environ
- The ability to adapt existin
- The ability to assess the
danger to human survival.

(4) The most limiting factor prev
in both crash landings was: (C
answers the question).

- The intelligence of the ship
- The sophistication of his te
- The physical environment.
- The absence of survival tra

(5) What would be the structure a
with Coca Cola, fresh from
answer in the blank space prov

(6) In an emergency situation, ho
described in question (5) ser
used for the following purpos
following each phrase answe
question.)

- To light a fire.
- To clean a fish.
- As a weapon.
- To send a message.

(7) Use the tools constructed in
relationship between the idea
function. (Write your answer

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*The idea for this test item is from an activity in J. Pfeiffer and John E. Jones, "The NASA Exercise: Seeking Consensus," *Structured Experiences for Human Relations Training*, (Iowa City, Iowa: University Associates, Publishers and Consultants.

DAY FOUR

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a total of 35 points for the entire test.
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l several clips of ammunition
on container of water
g hook and attached rope
c compass
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above but this time you crash-landed on
cap, 100 miles from a missile defense
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supply of concentrated food
l several clips of ammunition
lon container of water
g hook and attached rope
c compass
supply of oxygen
crash victim to survive on the lunar surface
ll but one of the following factors: (Circle
hat does *not* apply).

- The ability to use technology.
- The ability to create technology from the resources found in the lunar environment.
- The ability to adapt existing technology to new uses.
- The ability to assess the environment in terms of its danger to human survival.

(4) The most limiting factor preventing the use of equipment in both crash landings was: (Circle the statement that *best* answers the question).

- The intelligence of the ship commander.
- The sophistication of his technology.
- The physical environment.
- The absence of survival training.

(5) What would be the structure and function of a bottle, filled with Coca Cola, fresh from the supermarket? (Write the answer in the blank space provided).

(6) In an emergency situation, how might the same coke bottle described in question (5) serve as a tool which could be used for the following purposes: (Write a short description following each phrase answering the four parts of the question.)

- To light a fire.
- To clean a fish.
- As a weapon.
- To send a message.

(7) Use the tools constructed in question 6 to illustrate the relationship between the idea of structure and the idea of function. (Write your answer in the blank space provided.)

n is from an activity in J. Pfeiffer and John
ercise: Seeking Consensus," *Structured*
ions Training, (Iowa City, Iowa: University
ultants.

DAY FIVE

a. *Teaching Strategy*
A 30-minute period devoted to affective evaluation.

b. *Instructional Sequence*
The instrument which follows concludes the affective instruction of the model lesson. Assume you were a student involved in the sequence and take the test based on the attitudes implied in the instructional components already described.

Affective Test

Directions: In the questions that follow you are going to be asked to react to two different situations. Answer the questions the best you can. Because these questions will not be graded there is no need to place your name on the answers.

(1) Item 1: Assume the role of Old Kigtak in the following poem. Write a one paragraph note that will be discovered after you are gone explaining the circumstances of your death.

Old Kigtak*

One bad winter when everyone was weak with hunger
and the village decided to move to new hunting grounds,
Arfek had to leave behind his old mother-in-law Kigtak
to crawl over the ice and catch up if she could.

It was a pitiful sight and we did not laugh for it probably meant death for her:
The old lady was half-blind and crippled and she was not wearing warm enough clothes for the weather but as long as she could crawl she followed: Life was still sweet to her.

No one here among us wishes harm to old people for we ourselves might live to be old some day but Arfek had no choice but to leave Old Kigtak behind.
He couldn't let her ride on the sledge, for he had only two dogs, and as it was he and his wife had to help draw the sledge, weak as they were.

He couldn't go back to get her after they camped because that would mean spending the night traveling back and forth when he had to be at the breathing holes early next morning to hunt for food.
He could not allow his wife and children to starve: He had to think of them first for they had their lives ahead of them,

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*The content for this test is taken from *Songs and Stories of the Nelsilik Eskimos*, from Man: A Course of Study, Education Development Center, Inc. Cambridge, Mass. Used with permission of Curriculum Development Associates, Washington, D.C.

rather than help an old wo
death's door anyway.

We have a custom that old people
should help death to take them
Old Kigtak thought of this, left be
She knew she was useless and cou
hang on as a burden to her chil

You see, it is not that we hav
conditions of life here are mer
of ice and snow sometimes we

Write the one-paragraph note
circumstances of your death:

(2) Item 2: Modern Eskimo culture h
from more technologically develo
might the replacement of the Esk
snowmobile have had on traditiona
your feelings about the changes th
answer in the blank space provided

ed to affective evaluation.

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you were a student involved in the sequence
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was he and his wife had to help draw the
they were.

k to get her after they camped because that
ending the night traveling back and forth
to be at the breathing holes early next
for food.
his wife and children to starve: He had to
irst for they had their lives ahead of them,

rather than help an old worn-out woman who was at
death's door anyway.

We have a custom that old people who cannot work anymore
should help death to take them.
Old Kigtak thought of this, left behind, all along on the ice.
She knew she was useless and couldn't work anymore so why
hang on as a burden to her children?

You see, it is not that we have hard hearts but that the
conditions of life here are merciless and to survive in a land
of ice and snow sometimes we must be without pity.

Write the one-paragraph note below, explaining the circumstances of your death:

(2) Item 2: Modern Eskimo culture has been influenced by ideas from more technologically developed cultures. What impact might the replacement of the Eskimo sled with the modern snowmobile have had on traditional Eskimo culture? What are your feelings about the changes that might result? (Write the answer in the blank space provided below.)

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is taken from *Songs and Stories of the*
Course of Study, Education Development
s. Used with permission of Curriculum
ngton, D.C.

2. An Analysis of the Measuring Instruments Used at the End of the Model Lesson

Directions: Compare the answers you wrote on the preceding cognitive and affective tests with the following analysis based on the evaluation results from a hypothetical 8th grade class of 30 students. The analysis of all seven cognitive test items will be based on the following cognitive and affective objectives.

At the conclusion of the activity and when provided with different environmental settings, the student will be able to determine the degree to which technology is functional and disfunctional and when probing the relationship between the environment and technology, be able to apply the related concepts of tool, resource, structure, and function. Success will be determined on the students' ability to accumulate 4 out of 5 points assigned to each of the seven items on the cognitive test.

At a time shortly after the conclusion of the activity the student will, in the course of writing about a culture that is different from his own, demonstrate an empathy for the culture and judge it from standards relative to the culture being studied, rather than from the standards of the student's culture. In his answers, the student will recognize that culture, however it differs, is what makes man human.

a. Analysis of Cognitive Evaluation

The analysis of individual test items will relate to the above objectives but will also be based on the specimen answers and explanation notes following each test item. The model of test analysis will help you later when you are called upon to determine the components of instruction that either helped or hindered the accomplishment of the objective.

Specimen Answers (Test Item 1)

- ___A compact gas heating unit with matches
- ___A two-day supply of concentrated food
- ___A rifle and several clips of ammunition
- ___A two-gallon container of water
- ___A climbing hook and attach
- ___A magnetic compass
- ___A two-day supply of oxyge

Notes on Item 1: There was a gre
rank ordering but on either ext
uniform. The criteria for grading
the item was not to explore
environment influences technolog
1 was 4.2 on a scale of 5. The m
the class scores on item No. 1 a
students taking the test.

Specimen Answers (Test Item 2)

- ___A compact gas heating unit
- ___A two-day supply of concen
- ___A rifle and several clips of a
- ___A two-gallon container of w
- ___A climbing hook and attach
- ___A magnetic compass
- ___A two-day supply of oxyge

Notes on Item 2: The same cond
1. The class did better, on the wh

Specimen Answers (Test Item 3)

- The ability to create technolo
  the lunar environment.

Notes on Item 3: The class mean
the students who missed the it
justified their answer by saying
they *couldn't* use all the tech
justify changing their grades.

Specimen Answers (Test Item 4)

- The physical environment.

Notes on Item 4: The class mean
the incorrect answers were optio
for "A" was, "If he was stupid
argument didn't justify changing t

Specimen Answers (Test Item 5)

- The structure of the bottle is
  sealable metal cap. The funct
  transport, and market the co
  answer that distinguishes be
  would be accepted.)

Notes on Item 5: About a third
structure and function of Coke r
the class could answer the questio

Specimen Answers (Test Item 6)

(1) To light a fire: Use the thick
the rays of the sun on kindlin
(2) To clean a fish: Break the bo
and clean the fish.

the Measuring
ed at the
el Lesson

e the answers you wrote on the
itive and affective tests with the
sis based on the evaluation results
tical 8th grade class of 30 students.
all seven cognitive test items will be
following cognitive and affective

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rs, is what makes man human.

e Evaluation

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ation notes following each test item.
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either helped or hindered the
he objective.

Item 1)
heating unit with matches
ly of concentrated food
ral clips of ammunition
ntainer of water

- ____A climbing hook and attached rope
- ____A magnetic compass
- ____A two-day supply of oxygen

Notes on Item 1: There was a great deal of variation in individual rank ordering but on either extreme the answers were fairly uniform. The criteria for grading is lenient because the point of the item was not to explore survival, but to explore how environment influences technology. The class mean on item No. 1 was 4.2 on a scale of 5. The mean was obtained by adding all the class scores on item No. 1 and dividing by the number of students taking the test.

Specimen Answers (Test Item 2)

- ____A compact gas heating unit with matches
- ____A two-day supply of concentrated food
- ____A rifle and several clips of ammunition
- ____A two-gallon container of water
- ____A climbing hook and attached rope
- ____A magnetic compass
- ____A two-day supply of oxygen

Notes on Item 2: The same conditions prevailed as for Item No. 1. The class did better, on the whole, for the class mean was 4.5.

Specimen Answers (Test Item 3)

- The ability to create technology from the resources found in the lunar environment.

Notes on Item 3: The class mean on this item was 3.8. Most of the students who missed the item answered option "A" and justified their answer by saying survival was difficult because they *couldn't* use all the technology. Their argument didn't justify changing their grades.

Specimen Answers (Test Item 4)

- The physical environment.

Notes on Item 4: The class mean on this item was 4.0. Most of the incorrect answers were option "A." The justification given for "A" was, "If he was stupid he would just sit there." The argument didn't justify changing the grade.

Specimen Answers (Test Item 5)

- The structure of the bottle is cylindrical, made of glass with a sealable metal cap. The function of the bottle is to contain, transport, and market the contents of the container. (Any answer that distinguishes between structure and function would be accepted.)

Notes on Item 5: About a third of the students wrote about the structure and function of Coke rather than the Coke bottle, but the class could answer the question: Class mean of 4.4.

Specimen Answers (Test Item 6)

(1) To light a fire: Use the thick end of the bottle to concentrate the rays of the sun on kindling material.

(2) To clean a fish: Break the bottle and use a sharp edge to cut and clean the fish.

(3) As a weapon: Use the entire bottle as a club or break it as a sharp instrument.

(4) To send a message: To reflect the sun, to build a signal fire, or to carry a written message downstream.

Notes on Item 6: Although the boys in the class did considerably better than the girls, the class mean was 4.2.

Specimen Answer (Test Item 7)

- In each case the new tool required a different structure and a different function than the original. In the case of a fish cleaning tool, for example, both structure and function were changed. When the bottle was used to float a message the structure remained the same, but its function changed. In every case man is able to change the structure and function of the resources he has available to him if he knows their properties and can envision how they can help him.

Notes on Item 7: The students' answers were quite creative, but on the average they could describe the relationship between structure and function. The class mean was 4.4.

b. An Analysis of Affective Evaluation

Specimen Answers (Item 1)

- To Whom It May Concern: In our land life is different, especially for old people like me who are unable to care for themselves. I have been left to die, not because I have done wrong, but because I have become a burden to my family. In times of hunger the old are often sacrificed for the young. My survival would endanger the well-being of my family. I do not want to die; yet I do not want to live and be the cause of another's death. It was a difficult decision, but it is a difficult life we live. In times such as this, decisions about life and death must be made, for it is the way of our people.

Notes on Item 1: The objective defining Item 1 is based on the assumption that preservation of society is better served by people who recognize the humanness of others. This humanness is further defined through the objective as behavior which requires empathy through understanding and intellectual values based on cultural relativity, multi-causality, and a world view. The specimen answer is only illustrative of a type of answer to the question. Because there is no measurable criterion the test results simply describe a range of responses to the question. Some 10% of the students answered according to the behavior suggested in the objective and specimen answer. Some 60% of the students simply recounted the same circumstances described in the poem and let Kigtak die without a whimper. Some 20% provided long involved discourses on the meaning of death, but rarely did they mention culture at all. The remaining 10% brought in the Canadian Mounties and arrested the entire family for first degree murder.

Specimen Answer (Item 2)

- The snowmobile would hav
traditional Eskimo culture. I
the relationships of the Esk
time, many survival skills suc
The balance between man and
would be shattered. This w
balance as well as the religi
animals. Rapid mobility wou
and bring with it di
Modernization would not be
be accompanied by many of

Notes on Item 2: The objective d
defined the same type of behavio
Humanness is defined as recogniti
no matter what differences exist,
culture that man becomes human.
thoughtful, insightful answers co
benefits and dangers that could
Another 40% treated the questio
the type of environmental conce
press. Few of the answers in
interrelatedness of culture or a co
unique expression of man's ability
compared Eskimo sleds and snow
and function and the availability
cap.

3. Using Evaluation to
Improve Instructio

Directions: The two-part analy
on the information provid
in the cognitive and affect
you are to determine w
achieved. In Task 2, you a
the reason for non-ach
questions based on the six

a. Task 1: Which objectives were

b. Task 2: What are the reason

(1) Objectives component

(a) Are the objectives consiste
program?

Use the entire bottle as a club or break it as a
ent.
ssage: To reflect the sun, to build a signal fire,
written message downstream.
Although the boys in the class did considerably
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ffective Evaluation

tem 1)
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have been left to die, not because I have done
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ould endanger the well-being of my family. I do
die; yet I do not want to live and be the cause of
th. It was a difficult decision, but it is a difficult
In times such as this, decisions about life and
made, for it is the way of our people.
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preservation of society is better served by people
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specimen answer. Some 60% of the students
the same circumstances described in the poem
without a whimper. Some 20% provided long
es on the meaning of death, but rarely did they
at all. The remaining 10% brought in the
es and arrested the entire family for first degree

Specimen Answer (Item 2)

- The snowmobile would have a tremendous impact on the traditional Eskimo culture. In the first place it would disrupt the relationships of the Eskimo to his environment. Over time, many survival skills such as sled building would be lost. The balance between man and the animals that sustain his life would be shattered. This would influence the ecological balance as well as the religious beliefs associated with the animals. Rapid mobility would weaken the family structure and bring with it disorientation and discontent. Modernization would not be without benefits, but it would be accompanied by many of the problems associated with it.

Notes on Item 2: The objective defining Item 1 in the first part defined the same type of behavior a little differently for Item 2. Humanness is defined as recognition by students that all cultures, no matter what differences exist, have value because it is through culture that man becomes human. Some 40% of the students had thoughtful, insightful answers covering a wide range of possible benefits and dangers that could result from cultural diffusion. Another 40% treated the question rather superficially, reflecting the type of environmental concerns being raised in the popular press. Few of the answers in this category reflected on the interrelatedness of culture or a concern for preserving culture as a unique expression of man's ability to survive. The remaining 20% compared Eskimo sleds and snowmobiles, according to structure and function and the availability of gas stations on the arctic ice cap.

3. Using Evaluation to Improve Instruction

Directions: The two-part analysis which follows is based on the information provided in the model lesson and in the cognitive and affective test analysis. In Task 1, you are to determine which objectives were not achieved. In Task 2, you are to attempt to determine the reason for non-achievement by answering questions based on the six components of instruction.

a. **Task 1: Which objectives were not achieved?**

b. **Task 2: What are the reasons for non-achievement?**
   (1) Objectives component
      (a) Are the objectives consistent with the rationale of the program?

(b) Do the objectives have a logical sequence throughout, building on what went before and preparing for what follows?

(c) Do you have empirical evidence that students should be able to perform the behavior you expect of them?

(d) Do you have evidence that the criterion level is appropriate?

(e) Do the objectives go beyond coverage of "content" and demonstrate the applicability of social science perspectives to persistent social or educational problems?

(f) Are the effective objectives of the program consistent with the principles of democratic education?

(2) Assessment Component

(a) Do the cognitive, skill, and affective test items require the same range of behavior defined in the program objectives?

(b) Is the behavior required in the cognitive and affective evaluation valid in terms of the knowledge, skills, and attitudes necessary for today's society?

(c) Are the cognitive and affective evaluation instruments reliable from one test administration to the next?

(d) Do the evaluation instruments measure change in behavior by discriminating, separating, and grouping according to significant differences in student performance?

(e) Are all students expected to succeed, and does the way grades are reported maximize successful learning in the classroom?

(3) Activities component

(a) Do the activities treat what th

(b) Are there other activities
instructional objectives?

(c) Are the activities intellectuall
the better curriculum materia

(d) Is the concept of instructio
capitalize on the creativity of

(e) Do the questions posed in th
reaching higher levels of tho
inferring, generalizing, analyzi
and predicting?

(f) Do the activities allow the tea
process when intervention is r

(g) Are the activities responsive
learning to prevent teacher
hinders learning?

(4) Implementation component

(a) Are students given enou
instructional process to imple
own?

(b) Is the program implemented
on students' existing cognitive

ctives have a logical sequence throughout,
what went before and preparing for what

mpirical evidence that students should be able
behavior you expect of them?

vidence that the criterion level is appropriate?

tives go beyond coverage of "content" and
e applicability of social science perspectives to
l or educational problems?

ive objectives of the program consistent with
of democratic education?

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ive, skill, and affective test items require the
behavior defined in the program objectives?

or required in the cognitive and affective
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erences in student performance?

nts expected to succeed, and does the way
ported maximize successful learning in the

(3) Activities component
   (a) Do the activities treat what the objectives require?

   (b) Are there other activities that would better accomplish instructional objectives?

   (c) Are the activities intellectually sound and representative of the better curriculum materials now available for use?

   (d) Is the concept of instructional activity flexible enough to capitalize on the creativity of students?

   (e) Do the questions posed in the activities provide a vehicle for reaching higher levels of thought through such processes as inferring, generalizing, analyzing, hypothesizing, synthesizing, and predicting?

   (f) Do the activities allow the teacher to intervene in the learning process when intervention is required?

   (g) Are the activities responsive enough to the conditions of learning to prevent teacher intervention when intervention hinders learning?

(4) Implementation component
   (a) Are students given enough practice throughout the instructional process to implement the course ideas on their own?

   (b) Is the program implemented in such a way that it capitalizes on students' existing cognitive framework?

(c) Have you done everything you planned to do in the program?

(d) Is corrective action needed before students can proceed to the next instructional sequence?

(e) Does your teaching behavior change with groups of different size and ability?

(f) Are the conditions under which implementation takes place similar to the conditions students face when they leave school?

(5) Evaluation component

(a) Do you engage in self-evaluation as readily as student evaluation to improve instruction?

(b) Do you evaluate students on significant factual information, and does your evaluation also measure higher level thought processes?

(c) Do the objectives you evaluate include skill and attitude, as well as objectives from the cognitive domain?

(d) Is your evaluation systematic where weaknesses in one area of the curriculum suggests avenues of improvement in the other areas?

(e) Is evaluation of your short-range educational objectives supportive of the behavior you wish to accomplish in your long-range educational goals?

(f) Do you plan, teach, and
know?

(6) Hidden components

(a) Can you cope with a reality
that are sometimes em
controversial?

(b) Can you exploit the subject
raises the level of thinking in

(c) Do your strategies suppor
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(d) Can you cope with a learnin
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(f) Are students treated as co-e
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of your short-range educational objectives
he behavior you wish to accomplish in your
ational goals?

(f) Do you plan, teach, and evaluate what students already know?

(6) Hidden components

(a) Can you cope with a reality-based curriculum through issues that are sometimes emotional and that are often controversial?

(b) Can you exploit the subject matter disciplines in a way that raises the level of thinking in the classroom?

(c) Do your strategies support a climate of inquiry in the classroom which allows for student choice, but at the same time make students responsible for their own learning?

(d) Can you cope with a learning environment which raises more questions than it answers?

(e) Can you cope with a learning environment that tolerates uncertainty and change as a natural condition of life?

(f) Are students treated as co-equals in the classroom in a way which promotes their worth as individuals?

(g) Do the conditions of learning insure security, success, and fulfillment on the part of students?

(h) Are students provided the opportunity to question and seek justification for the demands made on their time and energies?

c. **Task 1: Prototype Answers:**

Directions: The answers which follow are suggestive of the type of information that can be generated from using evaluation to improve instruction. Use the answers as a basis of comparison from your own findings about the same instructional sequence.

Task 1: Which objectives were not achieved? To a large extent the cognitive objective was achieved according to the criteria established by the objective. Although a mean of 3.8 on Item 3 was indicative of failure, the test item, itself, was more responsible for the discrepancy than lack of knowledge on the part of the student. The affective objective was not achieved as neither of the affective test items generated the attitudes outlined in the affective objective.

d. **Task 2: Prototype Answers:**

(1) Objectives component

(a) **Are the objectives consistent with the rationale of the program?**
The behavior required of students over the five-day period is consistent with the rationale for the sequence. The objectives made the teacher answerable to societal needs while at the same time they take account of the nature of man and the limitations of formal education.

(b) **Do the objectives have a logical sequence throughout, building on what went before and preparing for what follows?**
The cognitive objectives did have a logical sequence, for students were able to handle the understandings treated in them. It is questionable if a proper background was established for the affective objective in previous instruction, and it is doubtful that students could maintain, in future instruction, the level of sophistication indicated by the objective.

(c) **Do you have empirical evidence that students should be able to perform the behavior you expect of them?**
The concepts treated in the sequence are similar to the ones treated in *Man: A Course of Study* and used at the middle school level. Although the affective objectives of *Man: A Course of Study* dealt with the question, "What makes man human?" they were developed over the entire year-long course. Students can handle the attitudes associated with that question if a developmental approach to them is taken.

(d) **Do you have evidence that the criterion level is appropriate?**
The criterion was established prior to giving both of the tests. Although the criterion for the cognitive objective was realistic the specimen answers for the affective instrument
indicated criteria more appro
high students.

(e) **Do the objectives go beyon**
demonstrate the applicability o
persistent social or educational
Some application was requi
sequence. The evaluation instru
application.

(f) **Are the affective objectives o**
the principles of democratic ed
The objective treated intellectu
with the principles of democ
could have had less freedom an
the implementation phases of t

(2) Assessment component

(a) **Do the cognitive, skill, and af**
same range of behavior defined
On the whole the test items
construction outlined in the
affective test items is due more

(b) **Is the behavior required in**
evaluation valid in terms of
attitudes necessary for today's
Evaluation does follow the rul
behavior called for is valid in
objectives of the instructional s

(c) **Are the cognitive and affe**
reliable from one test administr
Until item analysis is carried
determine test reliability. It w
test items would not be

(d) **Do the evaluation instruments**
discriminating, separating,
significant differences in studen
The cognitive test seems to dis
performance although Item 5
in the Boy Scouts. Item 1
measured the ability to read
cultural relativity.

(e) **Are all students expected to**
grades are reported maximi
classroom?
If the cognitive test was used
corrected through alternative
succeed in the program. Fai
objectives would require effort
treat a similar objective in futu

(3) Activities component

type Answers:

s: The answers which follow are suggestive type of information that can be generated using evaluation to improve instruction. Use nswers as a basis of comparison from your findings about the same instructional nce.

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ve evidence that the criterion level is appropriate? ion was established prior to giving both of the tests. the criterion for the cognitive objective was he specimen answers for the affective instrument indicated criteria more appropriate for college than junior high students.

(e) **Do the objectives go beyond coverage of "content" and demonstrate the applicability of social science perspectives to persistent social or educational problems?**

Some application was required during the instructional sequence. The evaluation instrument required a great deal of application.

(f) **Are the affective objectives of the program consistent with the principles of democratic education?**

The objective treated intellectual values which are consistent with the principles of democratic education. The students could have had less freedom and more structured activities in the implementation phases of the sequence.

(2) Assessment component

(a) **Do the cognitive, skill, and affective test items require the same range of behavior defined in the program objectives?**

On the whole the test items do follow the rules for test construction outlined in the objectives. The failure of the affective test items is due more to faulty test construction.

(b) **Is the behavior required in the cognitive and affective evaluation valid in terms of the knowledge, skills, and attitudes necessary for today's society?**

Evaluation does follow the rules for test construction so the behavior called for is valid in terms of the rationale and objectives of the instructional sequence.

(c) **Are the cognitive and affective evaluation instruments reliable from one test administration to the next?**

Until item analysis is carried out it would be difficult to determine test reliability. It would appear that the affective test items would not be reliable.

(d) **Do the evaluation instruments measure change in behavior by discriminating, separating, and grouping according to significant differences in student performance?**

The cognitive test seems to discriminate on a basis of student performance although Item 5 favored boys who had training in the Boy Scouts. Item 1 of the affective instrument measured the ability to read poetry more than it measured cultural relativity.

(e) **Are all students expected to succeed, and does the way grades are reported maximize successful learning in the classroom?**

If the cognitive test was used to identify weaknesses to be corrected through alternative instruction most students can succeed in the program. Failure to achieve the affective objectives would require effort on the part of the teacher to treat a similar objective in future instruction.

(3) Activities component

(a) Do the activities treat what the objectives require?
The activities are appropriate for both the cognitive objective and the cognitive evaluation. The affective component of the activities required more instruction to ensure transfer from the classroom activity to the more abstract applications required in the program evaluation.

(b) Are there other activities that would better accomplish instructional objectives?
If the activities accomplish the objectives established for them there is little reason to replace or revise them. Failure to achieve objectives is grounds for seeking better activities. Perhaps a simulation based on the adverse effects of rapid culture change would provide the background needed to accomplish the affective objectives of the sequence.

(c) Are the activities intellectually sound and representative of the better curriculum materials now available for use?
The sled building activity was adapted from a curriculum that has established itself as an intellectually sound project.

(d) Is the concept of instructional activity flexible enough to capitalize on the creativity of students?
The sled and tool-making activities provided quite a bit of student autonomy, for students were free to manipulate the various encounters in ways that did reflect their own creativity.

(e) Do the questions posed in the activities provide a vehicle for reaching higher levels of thought through such processes as inferring, generalizing, analyzing, hypothesizing, synthesizing, and predicting?
The questions posed were based on the cognitive tasks outlined by Taba. There was a breakdown in the sequence leading to the accomplishment of the affective objective. Students were unable to connect the impact of technology which they could deal with on a physical basis to its influence on values which is a more abstract relationship.

(f) Do the activities allow the teacher to intervene in the learning process when intervention is required?
More teacher intervention should have been evident with regard to the affective objective. More structure is required of an affective lesson than mere exposure to value-laden episodes.

(g) Are the activities responsive enough to the conditions of learning to prevent teacher intervention when intervention hinders learning?
The activities were inquiry-oriented throughout and though it would have been easier for the teacher to simply explain the concepts, students were provided an opportunity to arrive at the ideas on their own.

(4) Implementation component

(a) Are students given eno
instructional process to imp
own?
Although much more practi
the affective domain, there
apply cognitive ideas. Thi
evaluation instruments.

(b) Is the program implemented
on students' existing cogniti
The behavior required of th
and evaluation was relate
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(c) Have you done everything y
On the contrary, more was
carried out in a five-day peri

(d) Is corrective action needed
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(e) Does your teaching behavio
size and ability?
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of the teacher.

(f) Are the conditions under w
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The educational setting was
the opportunity to deal w
Concepts are not facts to b
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(5) Evaluation component

(a) Do you engage in self-ev
evaluation to improve instru
The reason for the present
cause of student failure
instructional program.

(b) Do you evaluate students o
and does your evaluation a
processes?
The information leading
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ve been easier for the teacher to simply explain
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ideas on their own.
component

(a) Are students given enough practice throughout the instructional process to implement the course ideas on their own?
Although much more practice could have been provided for the affective domain, there was considerable opportunity to apply cognitive ideas. This was particularly true of the evaluation instruments.

(b) Is the program implemented in such a way that it capitalizes on students' existing cognitive framework?
The behavior required of the cognitive objectives, activities, and evaluation was related to the students' background experience. This was not true of the affective objective and the broader relationships necessary before students would value culture as a humanizing force. Because the students lacked a framework for dealing with the objective, some organizing idea like the cultural pyramid would have been helpful.

(c) Have you done everything you planned to do in the program?
On the contrary, more was attempted than could actually be carried out in a five-day period.

(d) Is corrective action needed before students can proceed to the next instructional sequence?
Because the failure was with the affective objective it is incumbent upon the teacher, rather than the student, to remedy the failures of the instructional sequence.

(e) Does your teaching behavior change with groups of different size and ability?
The differences in student ability were held constant in the instructional sequence as was the size of the group. Both these factors require different behavior patterns on the part of the teacher.

(f) Are the conditions under which implementation takes place similar to the conditions students face when they leave school?
The educational setting was realistic and students were given the opportunity to deal with social science phenomenon. Concepts are not facts to be learned, but tools which help people make sense out of their enigmatic environment.

(5) Evaluation component

(a) Do you engage in self-evaluation as readily as student evaluation to improve instruction?
The reason for the present analysis is to determine if the cause of student failure is due to the teacher or his instructional program.

(b) Do you evaluate students on significant factual information, and does your evaluation also measure higher level thought processes?
The information leading to concept development is significant. The fact that students are required to apply the

concepts indicates higher level thought processes.

(c) **Do the objectives you evaluate include skill and attitude, as well as objectives from the cognitive domain?**
The objectives suggest that it is difficult to separate behavior into domains. There was no skill objective established although the skills of field observation, data collection, grouping, and classifying were used throughout the sequence.

(d) **Is your evaluation systematic where weakness in one area of the curriculum suggests avenues of improvement in the other areas?**
The problem with the instructional sequence began with the initial statement of the affective objective. Assessments of the test results demonstrated that little concern was given to entering student behavior. The criteria for the objective were illusive; therefore, the test items failed to discriminate between the students answering the items. A simulation activity might have provided the wherewithal to achieve the affective objective. A more realistic approach in the future would be to treat the objective over a longer period of time and in a cyclical manner. With this approach it is possible to return to the objective with more depth and sophistication each time it is treated.

(e) **Is evaluation of your short-range educational objectives supportive of the behavior you wish to accomplish in your long-range educational goals?**
Because of the brevity of the instructional sequence it would be necessary to examine the sequence in terms of the sequence rationale. In this regard the objectives are supportive of the goals established in the rationale.

(f) **Do you plan, teach and evaluate what students already know?**
A case could be made for administering a parallel cognitive test at the outset of the program to determine what students actually do know. The approach taken in the sequence is based on the assumption that ideas can be treated with varying degrees of depth and at several levels of sophistication. In concept teaching it is important to build on the cognitive structures students bring to class with them. Students may use concepts in a way that is grammatically correct, but have little real understanding of their meaning. If thoughtfully answered, the question would prevent the needless duplication of effort so characteristic of our educational system.

(6) Hidden components

(a) **Can you cope with a reality-based curriculum through issues that are sometimes emotional and that are often controversial?**
An attempt was made to deal with cultural issues in a realistic way.

(b) **Can you exploit the subject**
raises the level of thinking in
The content of the instructio
and sociology. The concepts
of the ways scholars group a
students were required to en
they were engaged in higher-l

(c) **Do your strategies support**
classroom which allows for
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The students were allowed c
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(d) **Can you cope with a learning**
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(e) **Can you cope with a learn**
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This belief is made explicit
implied in the treatment g
sequence activities.

(f) **Are students treated as co-**
which promotes their worth
This concern was woven
instructional process.

(g) **Do the conditions of learni**
fulfillment on the part of stu
The sequence was implemen
was neither arbitrary nor cap

(h) **Are students provided the o**
justification for the dema
energies?
Usually time is provided
grades are reported.

B. Application "B

1. Evaluate some aspect of the instr
developed as you went through th

2. Administer the items.

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with a reality-based curriculum through issues
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as made to deal with cultural issues in a realistic

(b) **Can you exploit the subject matter disciplines in a way that raises the level of thinking in the classroom?**
The content of the instructional sequence was anthropology and sociology. The concepts chosen for study were suggestive of the ways scholars group and classify phenomena. Because students were required to engage in similar thought processes they were engaged in higher-level thinking.

(c) **Do your strategies support a climate of inquiry in the classroom which allows for student choice, but at the same time make students responsible for their own learning?**
The students were allowed considerable autonomy and were required to use the ideas developed in the sequence. Critical thinking is a skill that must be learned through practice.

(d) **Can you cope with a learning environment which raises more questions than it answers?**
Most meaningful learning begins with a question rather than an answer. This generalization was applied in the sequence.

(e) **Can you cope with a learning environment that tolerates uncertainty and change as a natural condition of life?**
This belief is made explicit in the sequence rationale and is implied in the treatment given the culture concept in the sequence activities.

(f) **Are students treated as co-equals in the classroom in a way which promotes their worth as individuals?**
This concern was woven through all aspects of the instructional process.

(g) **Do the conditions of learning insure security, success, and fulfillment on the part of students?**
The sequence was implemented and evaluated in a way that was neither arbitrary nor capricious.

(h) **Are students provided the opportunity to question and seek justification for the demands made on their time and energies?**
Usually time is provided for student feedback when the grades are reported.

B. Application "B"

1. Evaluate some aspect of the instructional sequence you have developed as you went through the first six chapters.

2. Administer the items.

3. If any of the objectives was not achieved, attempt to find the reasons for failure. Use the same system for analysis suggested in Application "A."

Part Two
Analytical Perspectives

Chapter VII Interaction Analysis

Part I of *Perspectives* was designed to whet the teacher's appetite for the new social studies and to create a climate of opinion conducive to district-wide curriculum revision. The assumption underlying Part I is that experience with the content and methods of the new curriculum can change teacher behavior patterns. The assumption underlying Part II of *Perspectives* is that analysis of teacher behavior can provide the framework around which curriculum change can take place. Given the complexity of the instructional process it is not surprising that the analysis of the process will be equally complex. Part II of *Perspectives* will divide the process of analysis into three components dealing with "Interaction Analysis," "Curriculum Materials Analysis," and "District Wide Curriculum Analysis." The format of the chapters in Part II will emphasize the analysis and application of the various analytical instruments treated.

Chapter VII is designed to determine whether the idealized experiences of the first six chapters are actually carried out in classroom practice. Lawler points to research studies which show that such a discrepancy does exist between what teachers say about learning and what happens in the classroom. She wrote:

> The research findings emphasize:
>
> 1. That the majority of questions raised in classrooms with learners require mere regurgitation of facts;
> 2. That questions probing for exploration of ideas, for analysis, for generalizations to be formed are very infrequent;
> 3. That many directions are given;
> 4. That many interesting inquiries of children are turned aside;
> 5. That the major portion of time in the classroom is spent in "teacher talk."[1]

The Analysis section of Chapter VII will explore the reasons for the discrepancy between what teachers say about learning and what happens in their classrooms. It will also introduce the following interaction analysis instruments as possible ways of isolating and illuminating the discrepancies:

- Fair vs. Unfair Verbal Behavior
- The Parsons Guided Self Analysis System
- The Verbal Interaction Category System
- The Open and Closed Systems (MacDonald and Zaret)

The application section of the chapter will provide a simple model of interaction analysis which will permit you to develop your own interaction analysis instruments.

Analysis

Assume that the teacher in the following episode places a high preminum upon developing in her students a **positive attitude toward school, critical thinking skills, initiative in approaching problems and personal qualities of openness, cooperating, self-confidence and responsibility**. In short, she supports many of the principles of progressive education.

Directions: Given this transcript, analyze her actual classroom behavior in terms of the following general goals she has established:

o a positive attitude toward school
o critical thinking skills
o initiative in approaching problems
o openness
o cooperation
o self-confidence
o responsiblity

These goals are embodied in the analytical queries that follow the transcript. The **first set** of queries involves the teacher's behavior and the **second set** focuses on the behavior of the students.

Transcript of Classroom Behaviors[2]

Teacher: OK, kids you've just seen the slides, the slide tape on urbanization and what I'd like to do now is have you identify some of the city problems that you saw in it if you saw any. OK? Can I have some volunteers? Pat?

Pat: Overpopulation.

Teacher: Overpopulation. Good, I'm just going to abbreviate; I think you'll know what I mean--what I'm talking about. Any other city problems? Gallagher?

Gallagher: Um, drugs.

Teacher: Hey, you're chewing gum. Swallow it. Now what was the problem?

Gallagher: (Gulp) um, gum. . .(Kids

Teacher: Just give the problem.

Gallagher: Um, drugs.

Teacher: OK. I think that was ob
slide on the drugs. Debbi

Debbie: Well, kind of being alo
isolated and not knowing

Teacher: That's very, very good.
pay attention. Pat?

Pat: Pollution.

Teacher: Pollution. Very good,
pollution, Pat?

Pat: Noise pollution, probabl

Teacher: Pardon me?

Pat: Noise pollution.

Teacher: Noise pollution. Any oth

Pat: Trash.

Teacher: OK-litter, this sort of
observation, very good. J

Jeri: Hunger.

Teacher: Hunger. Very good——h
——excellent response. Ki

Kim: Unemployment.

Teacher: Unemployment. Very
with the rest of you pe
the causes of some
Gallagher, I'll give you a

Gallagher: I think that. . .

Teacher: Did you get rid of the gu

Gallagher: Yes.

Teacher: OK

Gallagher: I think with the drugs I
to get away from
overpopulation and may
get away from stuff so th

Teacher: OK, OK. . .Kim, do you
say, of poverty? What
cause of poverty. . .what
being a city problem?

Kim: Ah-violence.

Teacher: Do you think so?

uments.

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n her students a positive attitude toward
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about. Any other city problems?

e chewing gum. Swallow it. Now what
blem?

Gallagher: (Gulp) um, gum. . .(Kids laugh). . .ah. . .
Teacher: Just give the problem.
Gallagher: Um, drugs.
Teacher: OK. I think that was obvious. I mean, there was a slide on the drugs. Debbie?
Debbie: Well, kind of being alone in a crowd, like being isolated and not knowing anybody.
Teacher: That's very, very good. Very good. Gallagher, you pay attention. Pat?
Pat: Pollution.
Teacher: Pollution. Very good, very good. What kind of pollution, Pat?
Pat: Noise pollution, probably.
Teacher: Pardon me?
Pat: Noise pollution.
Teacher: Noise pollution. Any other kind of pollution? Pat?
Pat: Trash.
Teacher: OK-litter, this sort of thing. That's a very good observation, very good. Jeri?
Jeri: Hunger.
Teacher: Hunger. Very good––hunger. Excellent response ––excellent response. Kim?
Kim: Unemployment.
Teacher: Unemployment. Very good. What's the matter with the rest of you people? What do you see as the causes of some of these problems? OK, Gallagher, I'll give you another chance. Go ahead.
Gallagher: I think that. . .
Teacher: Did you get rid of the gum?
Gallagher: Yes.
Teacher: OK
Gallagher: I think with the drugs I think they're trying to try to get away from everything like the overpopulation and maybe––I don't know––just get away from stuff so they start on drugs.
Teacher: OK, OK. . .Kim, do you see any causes of - oh- let's say, of poverty? What would you say might be a cause of poverty. . .what might lead to poverty as being a city problem?
Kim: Ah-violence.
Teacher: Do you think so?

Kim: Yeah.

Teacher: I think I'd agree––yeah. Yeah, that sounds good. That sounds real good. Debbie?

Debbie: Well, with overpopulation, unemployment because of the poverty, because people don't have the money to buy the things they need and to move out of ragged areas.

Teacher: Very good, very good. Ah, that's an excellent response, an excellent response. Jan?

Jan: Well, kind of going with Debbie, they don't have the education so that they can't find a job or they haven't had the opportunities––I mean, that would lead to poverty.

Analysis of Teacher Behavior

Analyze the teacher's verbal behavior according to the following items, indicating her position on the continuum:

1. Supporting _____ _____ _____ _____ _____ Judging
   List specific comments, questions or key words which show her predominant behavior.

2. Probing for Meaning _____ _____ _____ _____ _____ Asking for Information
   List specific comments showing the predominant behavior.

3. Stimulating _____ _____ _____ _____ _____ Directing
   List specific comments showing the predominant behavior.

4. Accepting _____ _____ _____
   List specific comments showing th

5. Student Centered _____ _____ _____
   List specific comments showing the p

Analysis of Student

Analyze student behavior in the transcrip
ing items:

1. Comfortable _____ _____ _____
   Explain the reason for your judgmen

2. Exploring _____ _____ _____
   Explain the reason for your judgmen

agree--yeah. Yeah, that sounds good.
s real good. Debbie?
overpopulation, unemployment because
verty, because people don't have the
buy the things they need and to move
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to poverty.

eacher Behavior

rbal behavior according to the following
on the continuum:

__ _____ _____ _____ Judging
questions or key words which show
or.

Asking for
__ _____ _____ _____ Information
showing the predominant behavior.

__ _____ _____ _____ Directing
showing the predominant behavior.

4. Accepting _____ _____ _____ _____ _____ Rejecting
List specific comments showing the predominant behavior.

5. Student Centered _____ _____ _____ _____ _____ Teacher Centered
List specific comments showing the predominant behavior.

Analysis of Student Behavior

Analyze student behavior in the transcript according to the following items:

1. Comfortable _____ _____ _____ _____ _____ Uncomfortable
Explain the reason for your judgment.

2. Exploring _____ _____ _____ _____ _____ Acquiescing
Explain the reason for your judgment.

3. Talking _____ _____ _____ _____ _____ Listening
Explain the reason for your judgment.

4. Freeing _____ _____ _____ _____ _____ Limiting
Explain the reason for your judgment.

Negative Self-Image / Positive Self-Image
5. Self-Image _____ _____ _____ _____ _____ Self-Image
Explain the reason for your judgment.

Based on the information provided in the transcript and on your analysis of the teacher and student behavior, rate this teacher on the degree of goal achievement that you perceived. Place a check in the appropriate rating scale on the "Evaluation Checklist."

Evaluation Check

Specific goals	Str
A positive attitude toward school	
Critical thinking skills	
Initiative in approaching problems	
Openness	
Cooperation	
Self-confidence	
Responsibility	

Given five minutes to counsel this teac
you make of her classroom behavior?

How could she better achieve her idealize

The type of analysis you made of
could as easily be focused on your ow

— —— —— —— Listening
your judgment.

— —— —— —— Limiting
your judgment.

— —— —— —— Positive Self-image
your judgment.

on provided in the transcript and on your student behavior, rate this teacher on the that you perceived. Place a check in the he "Evaluation Checklist."

Evaluation Checklist

Specific goals	Strongly	Rating Moderately	Hardly at All
A positive attitude toward school			
Critical thinking skills			
Initiative in approaching problems			
Openness			
Cooperation			
Self-confidence			
Responsibility			

Given five minutes to counsel this teacher, what criticisms would you make of her classroom behavior?

How could she better achieve her idealized learning goals?

The type of analysis you made of the teacher in the transcript could as easily be focused on your own teaching behavior. Myrdal has written that a discrepancy exists between the values people proclaim and the way they actually behave.[3] Mydral's insight into human behavior describes a similar dilemma faced by many educators. The progressive movement, for example, has influenced the vocabulary of education more than it has its practice. Educational discussions frequently involve the use of such phrases as "problem-solving," "meeting needs," "inquiry," "real life experience" and "individual differences," but these terms rarely describe what is actually happening in the classroom. This discrepancy between the ideal and the real learning environment was illustrated by analysis of the preceding transcript. More sophisticated techniques for observing and recording classroom interaction have been developed by researchers, who interpret their observations according to some pre-determined theoretical framework. The bulk of these instruments are quite detailed and complex. Those described in *Perspectives*, however, do not require a great deal of training and can be used in the classroom with a minimum of disruption.

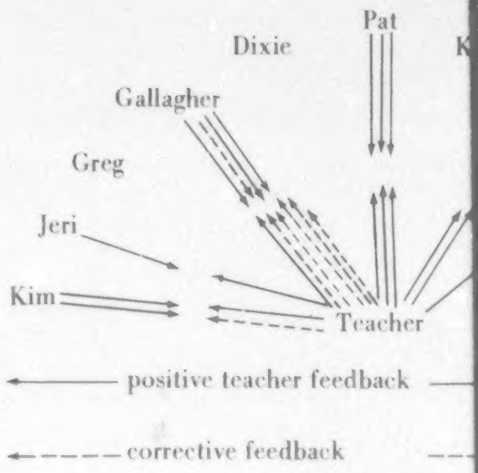
Teachers should consider the following systems with the idea of adapting, modifying and improvising in order to devise a workable means of answering their own questions about their classroom behavior.

Fair vs. Unfair Verbal Behavior System

A systematic way of analyzing this teacher's behavior is to review the teacher's goals and to isolate the behaviors that either aid or hinder her accomplishment of these goals. In all likelihood, goal achievement would have been improved had the teacher in the transcript used fair rather than unfair verbal behavior in her class. Use the description of behavioral indicators which follows to again analyze the transcript of classroom behavior presented earlier. Underline teacher comments or questions you feel are manifestations of fair or unfair verbal behavior.

The "Diagram of Verbal Interactions" in Figure 1 is another way to illustrate fair vs. unfair verbal behavior. It is conceptually simple but very revealing as to the role-relationships that are demonstrated in the transcript. Although the diagram has been filled in for you, it will help to answer the questions that follow it.

Figure 1[4]



- o How consistent is this teacher i
  gives to each student in terms of
- o How do you think each student p
- o How does he perceive other stude
- o How does he perceive the teacher
- o How does he perceive the classro

There are many variables that en
maintenance of a good learning en
responsiblity for that environment rests
teacher behavior is the determining facto
in class. Teacher behavior toward stu
perceive themselves and whether they s
influences the degree of anxiety and fear
learning in the classroom. The openness
used to predict learning while arbitrary
explain its absence. One of the corne
learning environment is the teacher's us
verbal behavior. Students are acutely s
teacher fairness, and its violation is centr
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s. Unfair Verbal avior System

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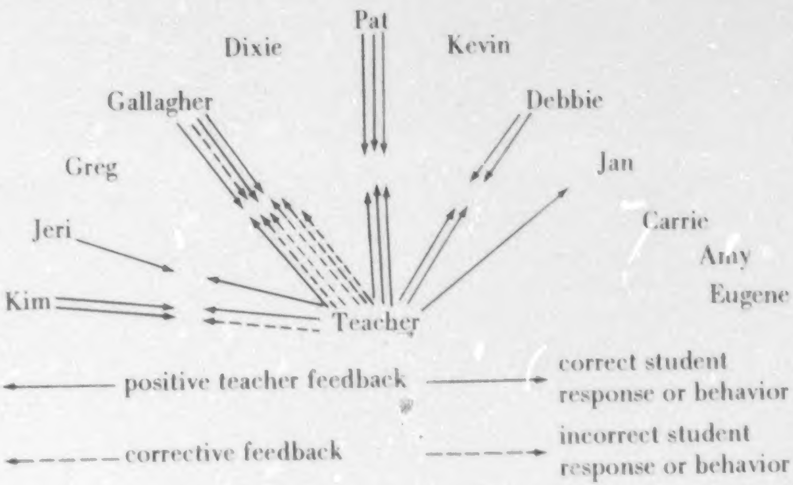
Figure 1[4]


Pat
Dixie
Kevin
Gallagher
Debbie
Greg
Jan
Carrie
Jeri
Amy
Kim
Eugene
Teacher
positive teacher feedback
correct student response or behavior
corrective feedback
incorrect student response or behavior

- o How consistent is this teacher in terms of the feedback she gives to each student in terms of the class as a whole?
- o How do you think each student perceives himself?
- o How does he perceive other students?
- o How does he perceive the teacher?
- o How does he perceive the classrooms' behavior as a whole?

There are many variables that enter into the creation and maintenance of a good learning environment. Most of the responsiblity for that environment rests squarely on the teacher, for teacher behavior is the determining factor for much of what happens in class. Teacher behavior toward students influences how they perceive themselves and whether they succeed or fail in school. It influences the degree of anxiety and fear which, if excessive, inhibits learning in the classroom. The openness of teacher behavior can be used to predict learning while arbitrary and abusive behavior can explain its absence. One of the cornerstones supporting a good learning environment is the teacher's use of fair rather than unfair verbal behavior. Students are acutely sensitive to the concept of teacher fairness, and its violation is central to many of the disorders that occur in the classroom. Fair verbal behavior on the part of the teacher is a prerequisite if optimum student learning is to take place.

ION OF BEHAVIORAL
FAIR VERBAL BEHAVIOR[5]

erbal behavior is that which follows a
all students concerned and is free from
e.

tances of Fair Verbal Behavior

aise the students' ideas than the students

e students when they do something she
them when they make a mistake or

mistake or misbehavior was rather than
s.
rify statements or define actions in order
r to praise or correct students.
t standard toward all concerned when
g students.

n-Instances of Fair Verbal Behavior

special breaks or lets them get away with
t of the other students.
student ideas.
don't deserve it.
no deserve it, but rarely corrects them
istake or misbehave.
onally, rather than their ideas.
ersonally rather than their ideas.
everely for minor things.
lent even when a student deserves it.
when they misbehave or make a mistake,
dents when they deserve it.

sons Guided
lysis System*

d the discrepancy between what teachers
in a study they conducted in which

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being published in this form. See note page

teachers were virtually unanimous in choosing "effective thinking" as the most important goal of their social studies program. When their actual teaching behavior was analyzed, 43% of the teacher-posed questions were rhetorical, requiring no student answer at all, 45% of the questions were information or recall which required very little thinking, 9% were leading questions which contained cues to the answer, and only 3% of the questions were probing, requiring original thought. At best, only 12% of the teacher's questions promoted the "effective thinking" objective the teachers established before the classes began. This evidence led the authors to conclude:

> The act of making the formal statement is both ritual **compliance** with professional norms and ritual **substitute** for any actual changes in teacher behavior which the content of the statement might require. In making the statement, the teacher is reconfirming the image of himself as an up-to-date professional, is proclaiming that his program meets current ideal standards, and is magically ensuring that his program will have the desired qualities. Having done so, he may carry on with his regular activities confident in the power of the ritual goal-statement to maintain the quality of his program. He is secure in the continuity of his regular activities and protected by the magical power of the written "charm." Nothing else need be done.[6]

As a result of his finding, Parsons went on to construct a "Guided Self Analysis System" where teachers were forced to view themselves on video-tape and through a process of six interaction matrixes to confront the discrepancy between their ritual goal statements and their actual teaching behavior. By facing this discontinuity, teachers should be motivated to close any such gap. The six schedules of the Parsons System outline elements of a strategy to making "teaching for inquiry" an operational educational goal.

Research done by Parsons and his colleagues indicates that familiarity alone with the Guided Self Analysis System will not significantly change teacher behavior, and that to be effective the teacher must apply the system to his own teaching. Schedules A and B of the system were introduced earlier in Part I of the *Perspectives* in material dealing with teacher questions and response patterns. (See Chapter II.) It is not possible at this time to recreate the remainder of systems in the detail necessary to actually apply it in the classroom. Each schedule is both a manual and a workbook which together utilize programmed instruction to achieve the program goals. The program is very personal and is designed for individual use, but its broadest impact for change comes if it is used in conjunction with similar efforts by others in the school or district. Parsons provides a brief description of the contents of each schedule as follows:

1. Schedule A - **Questioning Strategies.** Schedule A directs the teacher's attention to the kinds of questions he asks pupils. He is asked to classify his questions and the thinking the pupils must do to answer them satisfactorily. The teacher is asked to consider how his questions help evolve pupils' critical-analytic thinking skills.
2. Schedule B - **Response Patterns.** Schedule B points out that the teacher may use a desirable questioning strategy, aiding his pupils' intellectual growth; but arrest that growth with his own responses to pupil statements. With Schedule B the teacher is asked to classify his responses. He decides whether his responses promote or inhibit further pupil thinking. Then he is helped to interpret the relation of his questioning strategies to his response pattern.
3. Schedule C - **Teacher Talk Patterns.** With Schedule C, the teacher analyzes his classroom talk. He determines the proportion of time devoted to questions and responses, instruction, classroom management, behavior management, etc. The percentages obtained are then entered into a Teacher Talk Profile. The Profile also includes the data from Schedules A and B. Aided by the guidelines provided in Schedule C, the teacher analyzes the profile and determines to what extent the videotaped lesson actually emphasized the development of inquiry skills in pupils. He can readily note what portion of his own talk was instructional, and what portion was repartee with pupils. He can also explore the role relationship he has transacted with pupils, as this is reflected in the pattern of his own talk.
4. Schedule D - **Teacher-Pupil Talk Patterns.** It is with Schedule D that this last insight becomes most clear. Schedule D gives the teacher a means of mapping his pattern of communication with pupils. This map adds new meanings to the teacher's self-profile. It reveals the extent to which he intervenes in pupil statements, dominates the classroom with his own talk, controls the flow of talk or helps pupils work through their own thoughts.
5. Schedule E - **Experience Refere**
   teacher assess how much he u
   building new ideas. A t
   question/response strategy and
   which helps his pupils develop co
   questions, however, may not
   experiences. Pupils will then have
   and answering him. He may also
   they cannot relate his questions t
   to their own concerns and inte
   teacher to code his questions, a
   relate to pupil experiences. The
   interpret the results. He determin
   are relevant to pupil experiences
   pupils; 3) build concepts th
   experiences.
6. Schedule F - **Levels of Thinkin**
   teacher's insight into his own te
   the teacher's attention on the natu
   questions. With Schedule F, the t
   the level of thinking required
   questions, and the level of thin
   responses. The similarity betwee
   teacher required and the level at
   will then be mapped on a flow
   teacher can analyze his strategy
   development of pupils. He can als
   of his efforts.[7]

The Verbal Inte
Category System

Amidon and Hunter developed this
teacher-student talk patterns in the cl
Flanders System.[8] Classroom verbal beha
parts: A) teacher-initiated talk, B) te
response, D) pupil-initiated talk, E) other
be memorized before the system can
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them at a rate of about 20 per minute. Pl

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h pupils. This map adds new meanings to
rofile. It reveals the extent to which he
statements, dominates the classroom with
ols the flow of talk or helps pupils work

through their own thoughts.

5. Schedule E - **Experience Referents.** Schedule E helps the teacher assess how much he uses pupils' experiences in building new ideas. A teacher may employ a question/response strategy and a pattern of teacher talk which helps his pupils develop conceptual-analytic skills. His questions, however, may not relate directly to pupil experiences. Pupils will then have difficulty in understanding and answering him. He may also fail to motivate pupils if they cannot relate his questions to their past experiences, or to their own concerns and interests. Schedule E asks the teacher to code his questions, and to determine how they relate to pupil experiences. The teacher is then helped to interpret the results. He determines whether his questions: 1) are relevant to pupil experiences; 2) are understandable by pupils; 3) build concepts through analysis of pupil experiences.
6. Schedule F - **Levels of Thinking.** Schedule F furthers the teacher's insight into his own teaching dynamics. It focuses the teacher's attention on the nature of pupil responses to his questions. With Schedule F, the teacher will be able to code the level of thinking required of pupils by each of his questions, and the level of thinking shown by the pupils' responses. The similarity between the level of thinking the teacher required and the level at which the pupils responded will then be mapped on a flow chart. With this map, the teacher can analyze his strategy for managing the cognitive development of pupils. He can also assess the relative success of his efforts.[7]

The Verbal Interaction Category System (VICS)

Amidon and Hunter developed this instrument for analysis of teacher-student talk patterns in the classroom, building on the Flanders System.[8] Classroom verbal behavior is subdivided into five parts: A) teacher-initiated talk, B) teacher response, C) pupil response, D) pupil-initiated talk, E) other--and these categories must be memorized before the system can be used efficiently. Once learned, the observer can tally types of verbal behaviors, recording them at a rate of about 20 per minute. Plotting the tallies on a given matrix yields further information about type, sequence and amount of verbal interaction. Although the system is not described here in detail, the following summary of the categories should suggest ways in which student and teacher talk may be classified for analysis.*

A. **Teacher-Initiated Talk**
   1. Gives information or opinion: presents content or own ideas, explains, orients, asks rhetorical questions. May be short statements or extended lecture.
   2. Gives directions: tells pupils to take some specific action; gives orders; commands.
   3. Asks narrow questions: asks drill questions, questions requiring one or two word replies or yes-or-no answers; questions to which the specific nature of the response can be predicted.
   4. Asks broad questions: asks relatively open-ended questions which call for unpredictable responses; questions which are thought-provoking. Apt to elicit a longer response than 3.

B. **Teacher Response**
   5. Accepts: (5a) Ideas: reflects, clarifies, encourages or praises ideas of pupils. Summarizes, or comments without rejection.
      (5b) Behavior: responds in ways which commend or encourage pupil behavior.
      (5c) Feeling: responds in ways which reflect or encourage expression of pupil feeling.
   6. Rejects: (6a) Ideas: criticizes, ignores or discourages pupil ideas.
      (6b) Behavior: discourages or criticizes pupil behavior. Designed to stop undesirable behavior. May be stated in question form but differentiated from category 3 or 4, and from category 2. Gives direction, by tone of voice and resultant effect on pupils.
      (6c) Feeling: ignores, discourages or rejects pupil expression of feeling.

C. **Pupil Response**
   7. Responds to Teacher: predictable, relatively short replies, usually, which follow category 3. May also follow

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*From *Improving Teaching: The Analysis of Classroom Verbal Interaction* by Edmund Amidon and Elizabeth Hunter. Copyright c 1966 by Holt, Rinehart and Winston, Inc.

category 2, "David, you may re
8. Responds to another pupi
conversation between pupils.

D. **Pupil-Initiated Talk**
9. Initiates talk to teacher: state
to teacher without solicitation
10. Initiates talk to another pupil
direct to another pupil which a

E. **Other**
11. Silence: pauses or short perio
of classroom conversation.
12. Confusion: considerable nois
activities. This category may a
or may totally preclude the use

The Open and Close

If the open curriculum provides one a
encounters, the open teacher provides ano
developed a framework for analyzing the
in the classroom. The framework focu
teachers and students and classifies tha
freeing or restricting impact on the cla
authors hypothesized that "open" (tran
behavior on the part of the teache
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hand, they hypothesized that "closed"
decisions) behavior on the part of the tea
(reproductive) responses on the part of the

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follow category 3. May also follow

The Analysis of Classroom Verbal Interaction
h Hunter. Copyright c 1966 by Holt, Rinehart

category 2, "David, you may read next."

8. Responds to another pupil: replies occurring in conversation between pupils.

D. **Pupil-Initiated Talk**

9. Initiates talk to teacher: statements which pupils direct to teacher without solicitation from teacher.
10. Initiates talk to another pupil: statements which pupils direct to another pupil which are not solicited.

E. **Other**

11. Silence: pauses or short periods of silence during a time of classroom conversation.
12. Confusion: considerable noise which disrupts planned activities. This category may accompany other categories or may totally preclude the use of other categories.

The Open and Closed Systems

If the open curriculum provides one answer to creative classroom encounters, the open teacher provides another. MacDonald and Zaret developed a framework for analyzing the degree of openness found in the classroom. The framework focuses on verbal behavior of teachers and students and classifies that behavior in terms of its freeing or restricting impact on the classroom environment. The authors hypothesized that "open" (transaction-oriented decisions) behavior on the part of the teacher would create "open" (productive) responses on the part of the students. On the other hand, they hypothesized that "closed" (role-expectancy oriented decisions) behavior on the part of the teacher would create "closed" (reproductive) responses on the part of the students.

Figure 2
The Analytical Framework[9]
Classification of Verbal Behavior in the Classroom

OPENING

	Teacher	Learner	
Transaction Oriented Decisions	Teacher Stimulating Supporting Clarifying Facilitating Elaborating Evaluating *Monitoring **Chairing Accepting	Discovering Exploring Experimenting Elaborating Qualifying Evaluating Synthesizing Explicating Deriving implications Divergent association Counter-responding	**Productive Behavior**
Role-expectancy Oriented Decisions	Directing Judging (Verdicts) Reproving Rejecting Ignoring Probing - Priming *Monitoring **Chairing Factual Dialogue (telling) Affirming	Guessing Confirming Acquiescing Following Parroting Counter-responding (directing, judging, reproving, rejecting defending) Reproducing facts Reasoning based on given or remembered data	**Re-productive Behavior**

CLOSING

Transaction-oriented decisions

1. Reflect flexible teacher expectations.
2. Accept and expand the learner's meaning.

*Monitoring - calling on a student to respond; recognizing a volunteer response

**Chairing - Keeping a discussion going; no teacher talk.

3. Promote divergent, evaluative,
behavior.

Role-expectancy-oriented decisions

1. Reflect rigid teacher expectation
2. Reject or proscribe the learner's
3. Promote convergent, non-evaluat
4. Reproductive behavior include
convergent responses.

Application

Most of the research that has gone i
models and instruments for instructiona
in the preceding section began wit
characteristics. Reviewing the literatu
Ornstein found it to be "voluminous a
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set of behavior characteristics that de
concluding his review, Ornstein paraphra

> It is inappropriate to ask wheth
> classification of the relevant phe
> hope is that the selection and c
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The important point to consider wh
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that guarantee success in the classroom.
far are by no means foolproof, yet they s
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of those observations.

Creating Instruments for Inte

In the application exercise which fol
your own interaction analysis instr
observing, recording and interpreting the
your own classroom: The following co
development of the instrument:

Figure 2
Analytical Framework[9]
f Verbal Behavior in the Classroom

OPENING

Learner

Discovering — **Productive Behavior**
Exploring
Experimenting
Elaborating
Qualifying
Evaluating
Synthesizing
Explicating
Deriving implications
Divergent association
Counter-responding

licts)
ning
gue

Guessing — **Reproductive Behavior**
Confirming
Acquiescing
Following
Parroting
Counter-responding (directing, judging, reproving, rejecting defending)
Reproducing facts
Reasoning based on given or remembered data

CLOSING

ns
her expectations.
the learner's meaning.

n a student to respond; recognizing a

cussion going; no teacher talk.

3. Promote divergent, evaluative, and choice-making learner behavior.

Role-expectancy-oriented decisions

1. Reflect rigid teacher expectations.
2. Reject or proscribe the learner's meaning.
3. Promote convergent, non-evaluative and divergent responses.
4. Reproductive behavior includes cognitive memory and convergent responses.

Application

Most of the research that has gone into the development of the models and instruments for instructional process analysis described in the preceding section began with an analysis of teacher characteristics. Reviewing the literature on teacher behavior, Ornstein found it to be "voluminous and contradictory." There is simply no way to establish meaningful criteria and therefore no one set of behavior characteristics that describe a model teacher. In concluding his review, Ornstein paraphrased B. O. Smith:

> It is inappropriate to ask whether . . . a system is a true classification of the relevant phenomena. The most we can hope is that the selection and classification of teacher behaviors are wise and useful and that the method for classifying them is relatively clear-bearing in mind that this condition may neever be completely satisifed by any system.[10]

The important point to consider when using any system to improve teaching is that there is no foolproof *a priori* set of guidelines that guarantee success in the classroom. The systems described thus far are by no means foolproof, yet they suggest methods of observing classroom interaction and of making meaningful and useful analysis of those observations.

Creating Instruments for Interaction Analysis

In the application exercise which follows you will be developing your own interaction analysis instrument for systematically observing, recording and interpreting the behavior patterns present in your own classroom: The following components will guide your development of the instrument:

- o Focus
- o Standards
- o Analysis
- o Evaluation
- o Action

The sections which describe each of these components used in developing your personalized interaction analysis instrument will provide the directions you are to follow in designing the instrument.

A. Behaviorial Focus

Interaction analysis begins with a focus on some questions or problems you wish to explore in order to improve your teaching behavior. Many times the discrepancy between what we say about good teaching and what we do in the classroom is not at all obvious to the teacher involved. In the space provided below list 10 student characteristics in column "A" that you would most like to develop through your teaching. In column "B" list ten teaching behaviors that would best promote the desired student characteristics.

A Student Characteristics	B Teacher's Behaviors
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.

B. Standards of Desired Behavior

From the list you have compiled you have already started the process of establishing a set of educational standards. Choose one of the student characteristics
behaviors you would most like to
choose could be the most impor
could be the one you feel contai
between the ideal and what usuall
the space below rewrite the choice
As an example, you might choose a
"autonomous learner" and a corre
like "inquiry teaching." Followin
might say, "If I desire autonomou
part of students then as a teacher I

1) Talk less in the classroom;
2) Encourage more student-to-
3) Reward student-initiated t
4) Build more on student idea
5) Provide more opportuniti
ideas."

Complete the following "if-then"
own list of educational priorities.

If I desire __________ on the pa
teacher I must:

1. ______________________

2. ______________________

3. ______________________

4. ______________________

5. ______________________

C. Analysis

The interaction analysis format i
on the type of behavior th
measurement. There is a good c
standards elaborated in the if-t
measured on an interaction analy
the prototype example, for instan
end of the lesson and could be b

each of these components used in
interaction analysis instrument will
to follow in designing the instrument.

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o explore in order to improve your
y times the discrepancy between what
ching and what we do in the classroom
to the teacher involved. In the space
student characteristics in column "A"
ike to develop through your teaching.
n teaching behaviors that would best
udent characteristics.

B

Teacher's Behaviors

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

havior

compiled you have already started the
a set of educational standards. Choose

one of the student characteristics and corresponding teacher behaviors you would most like to explore. The category you choose could be the most important one on the list or it could be the one you feel contains the greatest discrepancy between the ideal and what usually happens in your class. In the space below rewrite the choice into an if-then statement. As an example, you might choose a student characteristic like "autonomous learner" and a corresponding teacher behavior like "inquiry teaching." Following the if-then format you might say, "If I desire autonomous learning behavior on the part of students then as a teacher I must:

1) Talk less in the classroom;
2) Encourage more student-to-student interaction;
3) Reward student-initiated thought whenever possible;
4) Build more on student ideas; and
5) Provide more opportunities for applying student ideas."

Complete the following "if-then" statement based on your own list of educational priorities.

If I desire __________ on the part of students, then as a teacher I must:

1. ______________________________

2. ______________________________

3. ______________________________

4. ______________________________

5. ______________________________

C. Analysis

The interaction analysis format imposes certain limitations on the type of behavior that can be selected for measurement. There is a good chance that not all of the standards elaborated in the if-then statement could be measured on an interaction analysis scale. Items 4 and 5 of the prototype example, for instance, deal with the planning end of the lesson and could be better achieved by a critical review of the lesson's behavioral objectives. Interaction analysis would not be suited for instructional conditions that require either lecture or individual study. Generally the conditions under which interaction analysis operates are spelled out in advance by the teachers. These conditions would include the time, place and educational setting in which the analysis will take place. Pick two or three standards from your if-then statements that can be measured, list them below and record the conditions under which they will be measured.

D. Relevant Factors in Recording

Probably the most difficult part of developing an analysis instrument is to isolate the specific observable behaviors that exemplify the standard under consideration. In the autonomous learner example, introduced earlier, it might be easy to measure the amount of the lesson spent in student talk. It would be more difficult, however, to isolate the specific behaviors which encouraged "student-to-student interaction" and "student-initiated thought". These behaviors might include such factors as:

1) The number of students who talk
2) The student-to-student talk patterns
3) The number of times the students mention the ideas of other students
4) The number of times the teacher mentions student ideas
5) The absence of closure statements or the number of times a teacher sustains or extends a student's idea.

Select one of the standards that remain from your list and break it down into three or four factors or attributes that could be measured.

E. Instrumentation

There are a number of ways of recording behavior depending mainly on the type of behavior to be observed. If the focus is on classroom climate, then it would make sense to sample that climate at set time intervals. In the **Verbal Interaction Category System**, for example, recording behavior at three-second intervals will indicate the teacher-student talk patterns. If **Schedule "A"** of Pars
used you would record only th
If both **Schedule "A"** and "B"
each question-answer-response.
"student initiated thought" th
classify specific comments by ty
vant factors might be the nu
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done by recording the class dialo
marking each instance of studen
sheet. Instrumentation involves
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video tape recorders, stop watc
based on a predetermined unit of

Notes

1 Marcella R. Lawler, "Guidelines f
Introducing Planned Curricular Innovati
Curricular Innovation (New York, 1970),

2 Ina V. S. Mullis, "Student Handou
Fair Verbal Behavior: A Protocol M
Protocol Materials Development Project
for Education in the Social Sciences, 197
of the Protocol Materials Development P
of Colorado, 1972.

3 Gunnar Myrdal, *An American Dilem*

4 Mullis.

5 *Ibid*.

6 Theodore W. Parsons and Fanny
Inquiry: Some Critical Issues," *Effect*
Studies, ed. Jean Fair and Fannie R. Sh
National Council for the Social Studies (

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time intervals. In the **Verbal Interaction**
for example, recording behavior at three-
ill indicate the teacher-student talk pat-

terns. If **Schedule "A"** of Parsons Guided Self Analysis is used you would record only the teacher-initiated questions. If both **Schedule "A"** and **"B"** are used you would record each question-answer-response. If the desired standard was "student initiated thought" then it would be necessary to classify specific comments by type. In this example the relevant factors might be the number of times the students mention the ideas of other students or the number of times the teacher mentions student ideas. This could most easily be done by recording the class dialogue and then playing it back, marking each instance of student-initiated thought on a tally sheet. Instrumentation involves the selection of an appropriate measurement system involving such things as audio or video tape recorders, stop watches, and a recording system based on a predetermined unit of analysis.

Notes

1 Marcella R. Lawler, "Guidelines for Developing Strategies for Introducing Planned Curricular Innovations," *Strategies for Planned Curricular Innovation* (New York, 1970), p. 26.

2 Ina V. S. Mullis, "Student Handouts for Fair Verbal Behavior," *Fair Verbal Behavior: A Protocol Materials Unit for Teachers*, Protocol Materials Development Project (Boulder, Colorado: Center for Education in the Social Sciences, 1972). Reprinted by permission of the Protocol Materials Development Project (CESSUC), University of Colorado, 1972.

3 Gunnar Myrdal, *An American Dilemma* (New York, 1944).

4 Mullis.

5 *Ibid.*

6 Theodore W. Parsons and Fanny R. Shaftel, "Thinking and Inquiry: Some Critical Issues," *Effective Thinking in the Social Studies*, ed. Jean Fair and Fannie R. Shaftel, 37th Yearbook of the National Council for the Social Studies (Washington, D.C., 1967), p.

125.

7 Theodore W. Parsons, *The Guided Self-Analysis Teacher Development Program: Teaching for Inquiry* (Berkeley, 1967), pp. 15-16. Reprinted by permission of the author.

8 Ned A. Flanders, *Analyzing Teacher Behavior* (Reading, Massachusetts, 1970).

9 James B. Macdonald and Esther Zaret, "A Study of Openness in Classroom Interactions," From *Teaching: Vantage Points for Study*, ed. Ronald T. Hyman. (Philadelphia: J. B. Lippincott, 1968), p. 199. Reprinted by permission of the publisher, J. B. Lippincott Company. Copyright c 1968.

10 Allan C. Ornstein, "Systematizing Teacher Behavior Research," *Phi Delta Kappan*, LII (May 1971), 551, quoting B. O. Smith, "Recent Research on Teaching: An Interpretation," *High School Journal*, LI (1967), 67.

Chapter VIII
Curriculum Materials Analysis

The most widely known curriculum r developed by the Social Science Educat Colorado.[1] The Curriculum Materials A based on an eight category analysis of:

1.0 Product Characteristics;
2.0 Rationale and Objectives;
3.0 Content;
4.0 Theory and Strategies;
5.0 Antecedent Conditions
6.0 Evaluation;
7.0 Background of materials developn
8.0 Background of the Analysis.

The analysis system used in **Persp** developed by Alan Tom at the Ce Educational Laboratory of St. Ann, M chosen because it is shorter than the CM theoretical orientation of Perspectives.

In the Analysis section of Chapter VI the analytical questions which make questions will deal with the following co

- Clarification of Intent
- Logical Analysis of Intents, Strat
- Curricular Intent; Making Value J
- Curriculum Evaluation
- Validity of Content
- Implementation Issues

In the application section of the cha of the **High School Geography Project,** how the model can apply to your ow model will be reproduced for you so that use it to analyze existing curricula o adopt in the future.

Analysis

Clarification of Intent

I. Analytical Question

A. What kind of an individual does a curri

Chapter VIII Curriculum ials Analysis

The most widely known curriculum materials analysis system was developed by the Social Science Education Consortium in Boulder, Colorado.[1] The Curriculum Materials Analysis System (CMAS) is based on an eight category analysis of:

1.0 Product Characteristics;
2.0 Rationale and Objectives;
3.0 Content;
4.0 Theory and Strategies;
5.0 Antecedent Conditions
6.0 Evaluation;
7.0 Background of materials development;
8.0 Background of the Analysis.

The analysis system used in **Perspectives** is taken from one developed by Alan Tom at the Central Midwestern Regional Educational Laboratory of St. Ann, Missouri.[2] This system was chosen because it is shorter than the CMAS and better fitted to the theoretical orientation of Perspectives.

In the Analysis section of Chapter VIII you will be introduced to the analytical questions which make up the Tom model. These questions will deal with the following components of the model:

- Clarification of Intent
- Logical Analysis of Intents, Strategies, and Materials
- Curricular Intent; Making Value Judgments
- Curriculum Evaluation
- Validity of Content
- Implementation Issues

In the application section of the chapter an analysis will be made of the **High School Geography Project**, as a prototype example of how the model can apply to your own curriculum materials. The model will be reproduced for you so that in **Application "B"** you can use it to analyze existing curricula or the curriculum you might adopt in the future.

Analysis

Clarification of Intent

I. Analytical Questions

A. What kind of an individual does a curriculum seek to develop?

B. What is the rationale (reasoned argument) for wanting to develop a particular kind of individual? Each rationale contains a societal framework for its conception of citizenship education.
   1. If the social context is implicit, then one can ask: What assumptions concerning society are behind the conception of the ideal individual?
   2. If the social context is explicit, then one can ask: (a) What evidence is cited to support the empirical statements in the framework? and (b) In what ways are the normative statements in the framework defended?[3]

II. Exemplification of the Model

Determining the intent of a curriculum is difficult particularly if you have not taught the curriculum material. Many times project or textbook authors hide their intent behind ambiguous terms like "preserving our cultural heritage," "learning democratic ideals," or as Tom has found, the all encompassing and ultimate outcome of "responsible citizenship." On these highest orders of generality most of the projects are in accord, but in order to clarify the true intent of a curriculum, the analyst must break down these ambiguous statements into actual behavior orientations on the part of students.

Categories of Citizenship[4]

Type of social studies content		Instrumental Outcome		Ultimate Outcome
Social science knowledge (facts and generalizations)	→	Students' understanding of human behavior and institutions	→	Scholarly man (authority on the social sciences)
Ways of social science thinking (modes of inquiry)	→	Students' ability to think like a social scientist	→	Scholarly man (investigator)
Procedures for making rational value judgments	→	Students' ability to make rational value judgments	→	Public man (decision maker)
Value judgments of a reference group	→	Student's committment to particular value judgments	→	Public man (possessor of moral truth)
Procedures which insure satisfied life adjustment	→	Students as wi sumers of the of society		
Reality-based content leading toward a more human existence	→	Students as responsible cho makers		

Once it is determined what category of the curriculum it is desirable to seek out t of that category. It is further desirable to subscribes to his definition and what reas support his claims. If his rationale is not necessary to define the type of assumpti the rationale is stated, the validity of assessed.

III. Contrasting Examp

The majority of the new project mate investigating man. There are two notable case of the Anthropology Curriculum Pro the Harvard Social Studies Project.

The Georgia Anthropology Project p elementary and junior high materials on materials are deductively organized to p which is defined by the project authors which the task (material to be learned) rather than independently discovered by premise underlying the project's scholar thorough understanding of the vocab paramount. Once the vocabulary of the d ample provision for the application of p cycling of units where the content of already covered.

The Harvard Social Studies Project values clarification. Although the themes on historical case studies in themes Revolution," "Negro Views of America," content is secondary to the project's ma analyze and discuss persisting human issues.[6] The rationale for developing the p centers around the pluralistic nature

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	Instrumental Outcome	Ultimate Outcome
	Students' understanding of human behavior and institutions	Scholarly man (authority on the social sciences)
	Students' ability to think like a social scientist	Scholarly man (investigator)
	Students' ability to make rational value judgments	Public man (decision maker)
	Student's committment to particular value judgments	Public man (possessor of moral truth)
Procedures which insure satisfied life adjustment	Students as wise consumers of the products of society	The Personal man (as self adjusted)
Reality-based content leading toward a more human existence	Students as responsible choice makers	The Personal man (as choice maker)

Once it is determined what category of individual is developed by the curriculum it is desirable to seek out the author's own definition of that category. It is further desirable to determine why the author subscribes to his definition and what reasoned arguments he uses to support his claims. If his rationale is not explicitly stated, it may be necessary to define the type of assumptions the author is using. If the rationale is stated, the validity of the statement should be assessed.

III. Contrasting Examples

The majority of the new project materials focus on the scholarly investigating man. There are two notable exceptions, however, in the case of the Anthropology Curriculum Project, Athens, Georgia, and the Harvard Social Studies Project.

The Georgia Anthropology Project places little emphasis in its elementary and junior high materials on the inquiry processes. The materials are deductively organized to promote reception learning which is defined by the project authors as "a type of learning in which the task (material to be learned) is presented to the learner rather than independently discovered by the learner."[5] The major premise underlying the project's scholarly man approach is that a thorough understanding of the vocabulary of a discipline is paramount. Once the vocabulary of the discipline is learned there is ample provision for the application of principles through a careful cycling of units where the content of one unit builds on a unit already covered.

The Harvard Social Studies Project places its major emphasis on values clarification. Although the themes treated in the series center on historical case studies in themes such as "The American Revolution," "Negro Views of America," and "The New Deal," the content is secondary to the project's major goal of helping students analyze and discuss persisting human dilemmas related to public issues.[6] The rationale for developing the public man as decision maker centers around the pluralistic nature of free society. Oliver and

Shaver described the need for cohesion within this pluralism when they wrote:

- Despite the inevitable degree of isolation among groups within the society, there must be recognition that many problems have to be handled by the community as a whole.
- The members of all the subgroups must to some extent share value commitments and a normative vocabulary as a framework within which to deal with these common problems.
- And this normative framework must include procedures for the mediation of interpersonal and intergroup conflicts, especially as necessary to solve the societal problems.[7]

Logical Analysis of Intents, Strategies, and Materials

I. Analytical Questions

A. To what extent can the intents of a course be accomplished in the available time?

B. Are the intents of a course both internally consistent and implemented through the daily intentions?

C. Are the teaching materials appropriate for achieving the daily and course intentions?

D. Are the proposed teaching strategies appropriate both to the daily intents and to the teaching materials?[8]

II. Exemplification of the Model

It is one thing to determine the goals of projects, but it is quite another to determine if these intentions are actually carried out. In order to have internal consistency in a project there should be a definite relationship between what an author says he is going to do, what he does, and how he does it. "Logical analysis," according to Tom, "involves judging the internal consistency of the intent, evaluating the consistency of the teaching strategies and the student materials with the intent, and estimating whether the intent of the course can be realized in the available time."[9]

- Project authors suffer the same tendency to over-sell their product as any manufacturer. Be wary of one semester

courses that teach western cultur
unit of the U.S. Constitution. If i
there is an added possibility that t
superficial treatment of the subject

- Curriculum materials should be
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of things, not just the things set do
- Content selection of any kind impli
judgments on the part of the a
curriculum rationale extols the vi
readings, case studies, and audio-vi
the "right" conclusions for this inq
- Teaching strategies should allo
whatever the course intention mi
student choice should not be ham
to cover 120 questions a per
democratic values should not be
methods.

III. Contrasting Examp

A logical analysis of curriculum intent
which to measure what a project author sa
the material he actually places in the han
Ohio State Project in economics and th
Studies Project stress inquiry. The curric
what each project means by inquiry is a frui

Ohio State University's **Ohio State P**
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coordination of economic activity. The an
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courses that teach western culture and still have time for a unit of the U.S. Constitution. If unrealistic claims are made there is an added possibility that the materials provide only a superficial treatment of the subject.

- Curriculum materials should be internally consistent. A course that purports to teach critical thinking, for example, should allow students to think critically about a wide range of things, not just the things set down in the daily lessons.
- Content selection of any kind implies a set of criteria or value judgments on the part of the author. Be concerned if a curriculum rationale extols the virtues of inquiry while the readings, case studies, and audio-visual materials suggest only the "right" conclusions for this inquiry.
- Teaching strategies should allow students to practice whatever the course intention might be. A course stressing student choice should not be hamstrung by a teacher forced to cover 120 questions a period. A course stressing democratic values should not be taught by authoritative methods.

III. Contrasting Examples

A logical analysis of curriculum intent provides a useful way in which to measure what a project author says in his rationale against the material he actually places in the hands of students. Both the **Ohio State Project** in economics and the **Carnegie-Mellon Social Studies Project** stress inquiry. The curriculum exemplification of what each project means by inquiry is a fruitful area for analysis.

Ohio State University's **Ohio State Project**[10] is a ninth grade one-semester economics course organized around the interrelated concepts of scarcity, flows of goods and services, and the coordination of economic activity. The analytic themes of marginal analysis and institutionalism tie the three concepts together and provide the course with process and continuity. The course intent is to develop the scholarly man by concentrating on the structure of economics. The daily lessons provide ample illustration through readings, case studies, and activities for each of the five themes treated in the course. Inquiry consists of providing students the opportunity to explore the nature of economics by discovering the order and rationality inherent in its structure. The major problem of the course is not a failure of consistency as much as a failure of the project's rationale. Scholars seldom agree on the structure of a discipline, let alone the teachers who are expected to implement it. In their evaluation the developers found that few students came to grips with the structure of economics, and that extensive teacher-training would be necessary to implement the course as suggested by the project. Although the course has a great deal to offer, the organization of course materials around the unfolding structure of economics proved to be an illusive organizing principle.

Carnegie-Mellon instituted a four-year ninth-through-twelfth grade course based on an almost impeccable rationale. Broadly construed, the course intent is "to help each student develop to the limit of his ability into an independent thinker and responsible citizen of a democratic society."[11] Inquiry consists of a process by which students use organizing concepts from the disciplines to raise questions which initiate a carefully-developed six-step problem-solving sequence. Although the aim is very high sounding at the rationale level, on the lesson-plan level the process consists of using teacher questions to cue students to conclusions which were preselected by the authors in the readings being offered. Fenton refers to this rather circumscribed process as "directed discussion." Its limitations are particularly evident in the ninth grade materials where political and economic comparions between the U.S. and the U.S.S.R. present a one-sided view favoring the American position. Although the project provides a wealth of good content and a powerful organizing idea, it spends too much time training students in the skills of inquiry and far too little time allowing the students to actually inquire.

Curricular Intent: Making Value Judgements

I. Analytical Questions

A. Is the ideal individual proposed by a curriculum closer to scholarly man or to public man? or to the personal man?

B. Which factor is given preference when one must choose between: an intent, unclear and inconsistent, but **compatible** with his own and a **clear and consistent** intent representing an orientation differing from his own?[12]

II. Exemplification of the Model

One of the assumptions made in **Perspectives** is that teachers will
have a choice in the type of curriculum
districts. If this is not a firm assumption t
analysis effort is merely academic. To t
analysis will indicate the clarity of curr
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Ultimately, however, a value judgment mu
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Part III of the model will aid in making the

- Grouping the various curriculum p
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  cross comparison. It is difficult to
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  the project stressing the scholarl
  different criteria than the success o
  personal man. One criterion for s
  suggested in the form of the c
  consistency of curriculum impleme
  might be the teacher's or the dis
  philosophy of education.
- Selecting a curriculum that is com
  own orientation would be a relativ
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  problem, but it does define the is
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III. Contrasting Examp

The questions suggested in this section
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Perennialism is the only philosophy n
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clear and consistent intent representing an
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ation of the Model

s made in **Perspectives** is that teachers will

have a choice in the type of curriculum they use in their school districts. If this is not a firm assumption then the entire curriculum analysis effort is merely academic. To this point the curriculum analysis will indicate the clarity of curriculum rationale and the degree of consistency and coherence by which it is carried out. Ultimately, however, a value judgment must be made on the type of curriculum the teacher will adopt. The two questions suggested in Part III of the model will aid in making the value judgment.

- Grouping the various curriculum projects by intent into the categories of scholarly, public, and personal man provides a way of not only isolating similar projects, but a system of cross comparison. It is difficult to compare projects without considering curriculum intent. The success, for example, of the project stressing the scholarly man will be based on different criteria than the success of a project promoting the personal man. One criterion for selection has already been suggested in the form of the clarity of intent and the consistency of curriculum implementation. Another criterion might be the teacher's or the district's own orientation or philosophy of education.
- Selecting a curriculum that is compatible with the teacher's own orientation would be a relatively simple procedure. The problems arise over questions of scope and sequence when other teachers or administrators have conflicting orientations. The question posed in the model does not answer this type of problem, but it does define the issue and hopefully lays the groundwork on which meaningful choice can be made.

III. Contrasting Examples

The questions suggested in this section of the Tom Model require teachers to determine the intent of a curriculum and then to make a value judgment about its suitability in terms of educational philosophy.

Perennialism is the only philosophy not represented in the new social studies movement. Some perennialist assumptions underlie the traditional scholarly and public man orientations where security is found in the great books of the past or in educational theories which purport to strengthen the intellect. The majority of new social studies projects are either essentialist or progressivist in that security is found in the ability to search and ferret out of man's exploding knowledge the processes needed to continue learning. If the processes are based on subject matter disciplines the projects will tend to be essentialist, while projects dealing with more general problem solving patterns and multi-disciplinary approaches will tend to be progressivist. Few curriculum projects are dedicated exclusively to the personal man. The existenialist orientation will be marked by the degree of student freedom built into the curriculum. If the curriculum stresses career education the progressivist philosophy will provide the dominant orientation.

Curriculum Evaluation

I. Analytical Questions

A. Is there evidence concerning the magnitude of an experimental curriculum's effects in relation to the effects of other curricula?

B. If the differences in effects are small, can this outcome be attributed to the inadequate test questions, single-push approach, single score test?

C. Are appropriate sampling techniques--for students, teachers, and schools--used so that the evaluation findings can be generalized to classrooms across the country?[13]

II. Exemplification of the Model

The approach to selecting curriculum used in the model distinguishes between curriculum analysis, i.e., deciding whether the intents of a curriculum are worthwhile; and curriculum evaluation, i.e., the actual learning outcomes that can be measured. Less emphasis is placed on evaluation in the model for two reasons; first, if the intent of a curriculum is not worthwhile, it makes little difference if students learn it; second, evaluation studies as they presently exist provide little help in the complex task of choosing a curriculum. In most cases the project developers found that the cognitive growth on the part of students at least equals that of the more traditional curriculum. If the cognitive area is equal, the need for evaluating non-cognitive objectives becomes very important, and as yet, research provides few tools to measure these areas. At best, teachers should look at the evaluation findings and should keep the following generalizations in mind:

- Everything being equal, a curriculum that has a proven ability to outperform its nearest competition is more valid than one that doesn't.
- If the evaluation results indica
statistically non-significant this d
that the curriculum is education
thinking, for example, is define
project authors; yet accepted cr
make these types of distinction
non-significant test results is th
narrow a testing focus. Curriculu
many factors influencing studen
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approach which measured several
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III. Contrasting Exam

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Evaluation

Questions

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so that the evaluation findings can be
rooms across the country?[13]

cation of the Model

lecting curriculum used in the model
iculum analysis, i.e., deciding whether the
e worthwhile; and curriculum evaluation,
outcomes that can be measured. Less
uation in the model for two reasons: first,
ulum is not worthwhile, it makes little
rn it; second, evaluation studies as they
le help in the complex task of choosing a
s the project developers found that the
art of students at least equals that of the
m. If the cognitive area is equal, the need
e objectives becomes very important, and
few tools to measure these areas. At best,
e evaluation findings and should keep the
mind:
qual, a curriculum that has a proven ability
earest competition is more valid than one

that doesn't.

- If the evaluation results indicate that the difference is statistically non-significant this does not automatically mean that the curriculum is educationally non-significant. Critical thinking, for example, is defined differently by different project authors; yet accepted critical thinking tests rarely make these types of distinctions. Another explanation for non-significant test results is that they may indicate too narrow a testing focus. Curriculum material is only one of many factors influencing student learning. A single push approach which measures only the curriculum variable will not produce as large a gain as would a multiple push approach which measured several learning factors. In a like manner, single test scores which combine several sub-test scores will present an average, thus smaller, gain than a more refined reporting procedure which broke the test instrument into its component parts and measured intra-test differences.
- If evaluation results indicate that the difference is statistically significant it does not automatically mean the curriculum is educationally significant. The type of sampling used by the evaluation is an important consideration, for test results in your own school district should replicate closely the test results in the original experiment. This is possible only to the extent that the original experimental group represented a true cross-section of the educational population.

III. Contrasting Examples

A. A survey of the four curriculum projects previously cited, as contrasting examples, indicates that there is a wide disparity in the amount and quality of the evaluation data available for analysis. Fenton and Good in their Carnegie-Mellon Project appear to have engaged in only informal evaluation. As far as can be determined there was no systematic formal evaluation carried out during the development of these materials. Teams of writers and teachers from Carnegie-Mellon, in cooperation with the Pittsburgh Public Schools, tried them a second time and then sent the project to the publisher.[14]

B. Oliver of Harvard University developed the **Harvard Project**. The materials for the project were taught by Oliver and his assistants over a three-year period. The results of the teaching experiences were set down in a book by Oliver co-authored with James P. Shaver entitled, *Teaching Public Issues in the High School* (Houghton, Mifflin, 1966). The evaluation carried out was summative in nature and, although interesting, was more concerned with testing the project's model for the analysis of public controversy than it was the materials.[15]

C. Rice and Bailey, of the University of Georgia, developed anthropological units to be used in grades one through seven. The authors described their evaluation in terms of "field testing." After the teacher and pupil materials had been taught, they were evaluated by the cooperating teachers and project staff in two-day seminars. During the seminars, the materials were examined on an item-by-item basis and revisions were made on this basis.[16]

D. Of all the Project Social Studies materials,* the Ohio State Project appears to be the most thoroughly tested and evaluated. The test data were gathered to assess four different areas: economics as a discipline, appropriateness of course material, adequacy of teaching, and effectiveness of the course. Evaluation was on-going during the development of the project, and it was used to guide materials construction. When completed, the materials were given trials in 44 classes under the direction of 22 teachers. The **SRA Test of Economic Understanding** was used to measure cognitive gain, and other project-made tests evaluated the students at various stages of the course. The students were given questionnaires at the end of the course to elicit their opinions and comments on the materials. The teachers worked under close supervision of the project staff and were constantly observed to see that they taught according to the basic theory underlying the materials. Unfortunately, time and financial consideration prevented these evaluative results from being used in a revised version of the project.

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*The Project Social Studies Materials were funded by the U.S. Office of Education. These projects had limited budgets and it is reflected in the evaluation they were able to carry out. The National Science Foundation Projects had much more money to spend on evaluation.

Validity of Content

I. Analytical Questions

A. Do the social science concepts a
curriculum represent social reality ac

B. Does the curriculum recognize tha
for any one discipline?

C. Is structure acknowledged to be dyn

D. Has the conception of structure(s) c
been analyzed by social scientis
development of the materials?[17]

II. Exemplification of t

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was to identify a new set of principles whic
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goals. The principles that developed have
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learning in four ways: "It makes a subject
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from one subject to another; and it facilita
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Validity of Content

I. Analytical Questions

A. Do the social science concepts and generalizations in a curriculum represent social reality accurately?

B. Does the curriculum recognize that several structures exist for any one discipline?

C. Is structure acknowledged to be dynamic?

D. Has the conception of structure(s) contained in a curriculum been analyzed by social scientists not involved in the development of the materials?[17]

II. Exemplification of the Model

One of the primary concerns of the curriculum reform movement was to identify a new set of principles which more rationally defined the role of subject matter content in the achievement of educational goals. The principles that developed have some uniformity in that they usually stress the concept of structure. Structure, defined in a general way, embodies the inter-relatedness of ideas; how key concepts are used as tools of inquiry, and how themes and generalizations bring concepts together into meaningful relationships. Bruner is quoted as saying that structure simplified the process of learning in four ways: "It makes a subject more comprehensible; it facilitates memory of a subject; it contributes to transfer of learning from one subject to another; and it facilitates intuitive thinking."[18] Although many project developers adhere to the concept of structure, there is little uniformity in the way structure is actually used in the various social studies projects.

- Determining the validity of curriculum content is at best a difficult task. Much of what is considered valid in curriculum stems from a person's own frame of reference. It may be helpful at this point to make a philosophical distinction. Advocates of an Essentialist position will typically view the concept structure ontologically, or in a way that deals with the realm of reality. Structure, to the Essentialist, is inherent in the subject-matter disciplines, and once the structure is discovered it becomes the social reality upon which the curriculum is based. Pragmatists, on the other hand, view the concept structure epistemologically, or as a way of knowing what reality is. Structure, to the Pragmatist, is an aid in learning, but little more. It is not inherent in the discipline; nor is it worthy of study in and of itself. For the Pragmatist, structure is a means to the end; for the Essentialist, it is that end.

- A danger in presenting any one structure as the only structure of a discipline is that it could become an arbitrary and narrow view of reality. If structure exists as reality, then the job of the curriculum developer is to record reality and present it to the students. If reality is pre-digested, prescribed, packaged, and presented there can be little provision left for student inquiry. This was the problem experienced by the Ohio State Program in Economics.
- Knowledge is dynamic, and if structure purports to organize that knowledge, it must be able to change. Schwab[19]divides structure into two dynamic components. Substantive structure is the mix of concepts, generalizations, and theories which a scientist uses to order his area of expertise. Substantive structure is never static, for new ways of structuring knowledge raise new questions which beget new knowledge, and, in turn, new ways of structuring that knowledge. Syntactical structure is also dynamic, for it represents the processes a scholar uses to verify knowledge in his discipline.The advent of new analysis techniques have kept syntactical structure in a constant state of flux.

- Because of the difficulty of determining the validity of curriculum content, one of the easiest things a teacher can do is to consult with expert sources outside of the project itself. This would be particularly important when analyzing a curriculum which was not sponsored by one of the professional associations of scholars.

III. Contrasting Examples

The structure underlying Econ 12[20] is a dynamic structure and considerably different than the static structure used by the Ohio State Project. The Ohio State Project deals with economic

institutions at one point in time w
interdependence between economics an
structure used in Econ 12 was designed
purposes:

- It defines economics so that st
what they are studying.
- It is a simple diagram of the conc
a picture, or a Gestalt, of what
model which teachers and studen
frame of reference, a starting
economics problem.
- It links economics to the study of
organization as part of social o
economic development as part of s

The Econ 12 project does recogniz
structures of economics. It distinguishes
psychological structures of the discipline.
most conceptual structures, shows how th
are related to each other. The psycholog
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better use the structure of economics in
the logical structure may be useful for th
for adults looking at economics, a psych
more meaningful to the student.[22]

In addition to the conceptual stru
following five analytical models which c
structure of the course: 1. tests of effi
systems management; 4. jurisprudential
and comparative economic analysis. The
5-4-3 model and is in actuality the concep
used as a framework for comparative econ
model the economic system being studie
is asked this overriding question.

How are the five economic activit
1. production, 2. distribution,
5. consumption
Used to accomplish the four econ
1. freedom, 2. justice, 3. prog
With the use of the three modes o
1. custom, 2. authority, 3. ma

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lying Econ 12[20] is a dynamic structure and
than the static structure used by the Ohio
hio State Project deals with economic

institutions at one point in time while Econ 12 shows the interdependence between economics and the rest of society. The structure used in Econ 12 was designed to accomplish the following purposes:

- It defines economics so that students and teachers know what they are studying.
- It is a simple diagram of the conceptual structure which gives a picture, or a Gestalt, of what economists study. It is a model which teachers and students can visualize and use as a frame of reference, a starting point for studying any economics problem.
- It links economics to the study of society, showing economic organization as part of social organization and describing economic development as part of social change.[21]

The Econ 12 project does recognize that there are different structures of economics. It distinguishes further between logical and psychological structures of the discipline. The logical structure, like most conceptual structures, shows how the concepts of the discipline are related to each other. The psychological structure differs from the logical structure in that it reorders concepts so that students can better use the structure of economics in classroom learning. Where the logical structure may be useful for the professional economist or for adults looking at economics, a psychological structure may be more meaningful to the student.[22]

In addition to the conceptual structure, Econ 12 uses the following five analytical models which constitute a methodological structure of the course: 1. tests of efficiency; 2. cybernetics; 3. systems management; 4. jurisprudential model of conflict analysis; and comparative economic analysis. The fifth model is called the 5-4-3 model and is in actuality the conceptual structure of the course used as a framework for comparative economic analysis. In the 5-4-3 model the economic system being studied for comparative purposes is asked this overriding question.

> How are the five economic activities:
> 1. production, 2. distribution, 3. savings, 4. investments, 5. consumption
>
> Used to accomplish the four economic goals:
> 1. freedom, 2. justice, 3. progress, 4. stability
>
> With the use of the three modes of decision making?
> 1. custom, 2. authority, 3. market[23]

Implementation Issues

I. Analytical Questions

A. Are the reading level and the complexity of ideas appropriate to the students?

B. What attitudes and skills do teachers need to teach the new materials?

C. Is it wiser to have all teachers, regardless of personal preferences, use the new materials or to permit teachers opposed to the new materials to maintain their established courses?

D. What unintended consequences are likely to result from the introduction of new materials? Are potential unintended consequences desirable or undesirable?

E. What is the cost of the new materials per pupil each year?

F. What new equipment or facilities are necessary for teaching the new materials?

G. What funds can be allocated for in-service training of teachers?[24]

II. Exemplification of the Model

Issues of implementation cannot be resolved by simply looking at materials. Successful implementation will depend on how well the new materials blend with the social environment of which they will be a part. The three areas of compatibility outlined in the Tom model are: 1. Antecedent Conditions: the skills, interests and competencies of both student and teacher needed before the new materials can be successfully used; 2. Unintended Consequences: the possible consequences either good or bad of using the new materials; 3. The financial considerations involved in adapting the new materials.

- Reading level is a relatively easy thing to determine. The complexity of ideas, however, is less easily assessed and requires careful judgment on the part of the teacher. One of the challenges of the new materials is to introduce intellectually-demanding content at earlier stages of student development.
- Are the teachers ready for material that might revise the traditional teacher-student role in the classroom?
- In order for an innovation to be successful teachers should be
committed to it. Diversity in curriculu
forced implementation of one cu
teachers' feelings may cause even more
- Predicting unintended outcomes and t
good or bad is a difficult but impo
individual produced by the curriculun
teacher and his colleagues can live wi
actually taught, or unless teachers
experience can be contacted, the area
open to wide-scale, but necessary, spec
- Can the local district afford the new
pupil cost, equipment, and teacher t
shoal upon which many good innov
the challenge that faces the teachers u
system.

III. Contrasting Exam

It would be impossible to provide a s
implementation issues involved with the
The November 1972 issue of *Social Educ*
social studies projects. You are directed t
point of departure in looking at issues of i

Application

Application "A"

In application "A" the High Scho
provide a prototype example of how
model might be used on a single project.

Analysis of High School Geo

I. Clarification of Intent

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B. What is the rationale for wanting
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committed to it. Diversity in curriculum has its problems, but the forced implementation of one curriculum, irrespective of teachers' feelings may cause even more serious problems.

- Predicting unintended outcomes and then determining if they are good or bad is a difficult but important task. Is the type of individual produced by the curriculum the type of individual the teacher and his colleagues can live with? Unless the materials are actually taught, or unless teachers with previous curriculum experience can be contacted, the area of unintended outcomes is open to wide-scale, but necessary, speculation.
- Can the local district afford the new materials in terms of per pupil cost, equipment, and teacher training efforts? This is the shoal upon which many good innovations have foundered and the challenge that faces the teachers using the curriculum analysis system.

III. Contrasting Examples

It would be impossible to provide a systematic treatment of the implementation issues involved with the new social studies projects. The November 1972 issue of *Social Education* treats 26 of the major social studies projects. You are directed to this valuable resource as a point of departure in looking at issues of implementation.

Application

Application "A"

In application "A" the **High School Geography Project** will provide a prototype example of how Tom's curriculum analysis model might be used on a single project.

Analysis of High School Geography Project

I. Clarification of Intent

A. What kind of individual does a curriculum seek to develop?
Although the HSGP has elements of several of the approaches, its major focus is on developing the scholarly investigating man.

B. What is the rationale for wanting to develop a particular kind of individual?
The course was seeking to narrow the gap between the

discipline as it is taught in the high school classroom and the frontiers of current research and professional thinking in geography.

1. *What assumptions concerning society are behind the conception of the ideal individual?*

   Society is in a constant state of flux, and the discipline of geography has perspectives and modes of inquiry which will make the individual's present and future world more meaningful.

2. *What evidence is cited to support the empirical statements in the framework?*

   There is no explicit statement about the inevitability of change or long range studies that show transferability of geographic concepts, perception, and modes of inquiry.

   The project's own change from its original concern with the discipline of geography to its final concern for inquiring students some ten years later is a testimonial to the potential of change. As far as the transferability of geographic knowledge and processes is concerned, the developers speak more from faith than from statistical findings.[25]

II. Logical Analysis of Intents, Strategies, Materials

A. *To what extent can the intent of the course be accomplished in the available time?*

There is little doubt that HSGP has improved the quality of geography in the schools. In a year-long course, it has taught "some of the ways the discipline looks at the world, some of the kinds of questions geographers ask about the world, and some of the methods geographers employ to answer the questions they ask."[26] The total quality of geography instruction will improve if there are spin-off improvements in the teaching of geography at the elementary and college level.

B. *Are the intents of the course both internally consistent and implemented through daily intentions?*

The geographic scholarship in the course is consistently high. By using the unit-author approach, each unit was developed by a specialist in the area of geography being treated. The large editorial staff within the project insisted as well that the geography units be teachable to high school students.

C. *Are the teaching materials approp*
and course intentions?

Throughout its course of
primarily an effort of professio
the way that their subject-matter
emphasis on up-to-date scholar
becoming quickly outdated. Th
even before they reached publica
made of most projects, and is pa
It points up the important role
the curriculum is to remain cu
study in the classroom.

D. *Are the proposed teaching strateg*
daily intentions and the teaching r

If one has taught the material
be in the affirmative. The teachin
actions of the teacher, but they
outcomes for the students. O
materials is known by the tea
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III. Curriculum Intent: Making Value Jud

A. *Is the ideal individual proposed*
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The major emphasis in HS
investigating man. Although the
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would be very easy to spin off in
deal with them from the public m
more difficult to develop the pe
the themes of manufacturing, agri
have potential "career education"

B. *Which factor is given preferenc*
between: an intent, unclear and in
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C. *Are the teaching materials appropriate for achieving the daily and course intentions?*

Throughout its course of development, HSGP was primarily an effort of professional geographers to improve the way that their subject-matter discipline was taught. Their emphasis on up-to-date scholarship has the problem of becoming quickly outdated. The materials were outdated even before they reached publication. This criticism could be made of most projects, and is particularly true of textbooks. It points up the important role the teacher must assume if the curriculum is to remain current, vital, and worthy of study in the classroom.

D. *Are the proposed teaching strategies appropriate to both the daily intentions and the teaching materials?*

If one has taught the materials, the answer would have to be in the affirmative. The teaching strategies do structure the actions of the teacher, but they very seldom structure the outcomes for the students. Once the intention of the materials is known by the teacher, there is considerable freedom to vary the strategies and the course directions.

III. Curriculum Intent: Making Value Judgments

A. *Is the ideal individual proposed by a curriculum closer to scholarly man or to public man (or to personal man)?*

The major emphasis in HSGP is on the scholarly investigating man. Although the project stresses geographic issues many of them have implications for public policy. It would be very easy to spin off into controversial issues and deal with them from the public man perspective. It would be more difficult to develop the personal perspective although the themes of manufacturing, agriculture, and mining would have potential "career education" spin off.

B. *Which factor is given preference when one must choose between: an intent, unclear and inconsistent, but compatible with his own, and a clear and consistent intent representing an orientation differing from his own?*

It should be remembered that students learn from a variety of approaches. It would seem that teachers should know where they are going and modify materials to their own purpose and design. The HSGP could be modified to suit any but the most traditional approaches to teaching.

IV. Curriculum Evaluation

A. *Is there evidence concerning the magnitude of an experimental curriculum's effects in relation to the effects of other curricula?*

As of August, 1970, there was no data available on cross project evaluation. One of the problems with the new social studies movement was the lack of long term evaluation.

B. *If the difference in effects are small can the outcome be attributed to inadequate test questions, single-push approach, single score tests?*

In the early stages of course development evaluation was turned over to the Educational Testing Service of Princeton, New Jersey. This evaluation was formative in nature and not designed so that comparisons between projects could be made. The project did use pre- and post-teaching on cognitive growth in students and used the results in the design of the course. This evaluation was internal, matching results among the various units or from one version of a single unit with the revised version of the same unit.

C. *Are appropriate sampling techniques for students, teachers and schools used so that evaluation findings can be generalized to classrooms across the country?*

Some units of the project underwent as many as five development, field testing, and revision cycles. The Educational Testing Service worked with the unit authors in their initial field testing of the materials with some 300 students. Teacher comments, student tests and teacher and student questionnaires provided data used to modify the materials. The data collection process of the more expanded limited field trials divided students by achievement, sex and social background. Teachers were divided by the academic background, geographic knowledge, and, in at least one trial period, by the type of training provided by the project itself. In these trials from three to six units were tested with some 25 or more teachers. The evaluation efforts brought about academically sound and highly teachable curriculum.

V. Validity of Content
(The High School Geography Project)

A. *Do the social science concepts and generalizations in a curriculum represent social reality accurately?*

The most articulate statement about the underlying structure of the High School Geogr
Pattison when he described the
went into the project's settlement t

1. The principal purpose of s
expedite the functioning of
social systems.
2. Settlement systems achieve t
territorial problems.
3. Settlement systems vary in terr
quite limited in extent, as in t
may be as vast as the entire Un
4. Settlement systems maintain t
needed components of the na
fresh water.
5. Any particular settlement syst
by trips and shipments, which
are part of the system.
6. Individuals become participant
filling appropriate roles; for e
or of commuter. A settlem
regarded as analogous, for exa
in an economic system or a vo
a colleague in a social system.[2

B. *Does the curriculum recognize t*
for any one discipline?

Research traditions in geograp
Pattison isolated four different
which have been endorsed at dif
the field. The geography in the
human-physical view of the field
years ago. Today the research tr
the discipline is a topical-regiona
The High School Geography Pro
one of these traditions, but is o
systems which favor the topica
allow for a study of human and,
geography.[28]

C. *Is structure acknowledged to be d*

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curriculum. White suggests that
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cience concepts and generalizations in a
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structure of the High School Geography Project was made by Pattison when he described the basic understandings that went into the project's settlement theme.

1. The principal purpose of settlement systems is to expedite the functioning of economic, political, and social systems.
2. Settlement systems achieve their purpose by resolving territorial problems.
3. Settlement systems vary in territorial scope. They may be quite limited in extent, as in the case of a farm, or they may be as vast as the entire United States or the U.S.S.R.
4. Settlement systems maintain themselves by assimilating needed components of the natural environment, such as fresh water.
5. Any particular settlement system is sustained as a system by trips and shipments, which is to say, such movements are part of the system.
6. Individuals become participants in settlement systems by filling appropriate roles; for example, the role of resident or of commuter. A settlement system role may be regarded as analogous, for example, to that of consumer in an economic system or a voter in a political system, or a colleague in a social system.[27]

B. Does the curriculum recognize that several structures exist for any one discipline?

Research traditions in geography have changed over time. Pattison isolated four different structures of geography which have been endorsed at different times by scholars in the field. The geography in the public schools represents a human-physical view of the field that was current some 50 years ago. Today the research tradition on the frontiers of the discipline is a topical-regional conception of geography. The High School Geography Project is not wedded to any one of these traditions, but is organized around settlement systems which favor the topical-regional forces, but also allow for a study of human and, to a brief extent, physical geography.[28]

C. Is structure acknowledged to be dynamic?

The project authors recognized HSGP as an unfinished curriculum. White suggests that if in ten years the course is taught widely and substantially, it will be "moderately unsuccessful." White goes on to say, "If it is highly successful, it will have generated a series of competitive improvements and internal revisions so that the new course will be rapidly replaced by more effective ones.[29]

D. *Has the conception of structure(s) contained in a curriculum been analyzed by social scientists not involved in the development of the materials?*

The project was sponsored by the Association of American Geographers which during the course of its development brought together some 300 geographers in devising, testing, and revising course materials.[30] It would be impossible to disassociate the project from the professional association of geographers that developed it.

VI. Implementation Issues

A. *Are the reading level and the complexity of ideas appropriate to the students?*

The project was designed for the top "80%" of students. It has been used successfully with students from 7th through 12th grade. The reading level will challenge average students but is a problem when dealing with poor readers. The activity orientation will involve students in the course despite their inability to read the materials.

B. *What attitudes and skills do teachers need to teach the new material?*

The teacher's guide provides adequate subject matter background for teaching without a geography background. The teaching strategies require the teacher to take an inquiry approach in the classroom.

C. *Is it wiser to have all teachers, regardless of personal preferences, use the materials or to permit teachers opposed to the new materials to maintain their established courses?*

HSGP can be broken into units or even into activities within units. For the growth potential to social studies faculty members, it would be wise to have all of them use at least a part of the course material.

D. *What unintended consequences are likely to result from the introduction of new materials? Are potential unintended consequences desirable or undesirable?*

Most of the consequences are desirable. It will create more interest in geography among students and teachers. For both, the project may raise the existing social studies curriculum.

E. *What is the cost of the new mater*

The units vary in cost but th 30 would be approximately $6 could use the same material gre cost.

F. *What new equipment or facilitie the new materials?*

The materials in HSGP are little outside material and equipm

G. *What funds can be allocated for in*

This will depend on the distri required to teach the course.

Application "B"

Use the complete model which follo course material or any new material yo adoption.

TOM'S MODE

Analytical Questi

I. Clarification of Intent

A. What kind of an individual d develop?

B. What is the rationale (reasoned develop a particular kind of i contains a societal framework citizenship education.

1. If the social context is implic assumptions concerning s conception of the ideal individ
2. If the social context is expli What evidence is cited t statements in the framework; the normative statements in th

II. Logical Analysis of Intents, Strategies

A. To what extent can the intent

White goes on to say, "If it is highly
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nd internal revisions so that the new course
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new materials? Are potential unintended
irable or undesirable?
consequences are desirable. It will create
geography among students and teachers. For

both, the project may raise the level of dissatisfaction with existing social studies curriculum.

E. *What is the cost of the new materials per pupil each year?*

The units vary in cost but the total package for a class of 30 would be approximately $650.00. Four or five classes could use the same material greatly reducing the per-pupil cost.

F. *What new equipment or facilities are necessary for teaching the new materials?*

The materials in HSGP are all self-contained, requiring little outside material and equipment.

G. *What funds can be allocated for in-service training?*

This will depend on the district but no formal training is required to teach the course.

Application "B"

Use the complete model which follows to analyze your existing course material or any new material you might be considering for adoption.

TOM'S MODEL

Analytical Questions

I. Clarification of Intent

A. What kind of an individual does a curriculum seek to develop?

B. What is the rationale (reasoned argument) for wanting to develop a particular kind of individual? Each rationale contains a societal framework for its conception of citizenship education.

1. If the social context is implicit, then one can ask: What assumptions concerning society are behind the conception of the ideal individual?
2. If the social context is explicit, then one can ask: (a) What evidence is cited to support the empirical statements in the framework; and (b) In what ways are the normative statements in the framework defended?

II. Logical Analysis of Intents, Strategies and Materials.

A. To what extent can the intent of a course be accomplished in the available time?

B. Are the intents of a course both internally consistent and implemented through the daily intentions?

C. Are the teaching materials appropriate for achieving the daily and course intentions?

D. Are the proposed teaching strategies appropriate both to the daily intents and to the teaching materials?

III. Curricular Intent: Making Value Judgments.

A. Is the ideal individual proposed by a curriculum closer to scholarly man or to public man? or to the personal man?

B. Which factor is given preference when one must choose between: an intent, unclear and inconsistent, but compatible with his own and a clear and consistent intent representing an orientation differing from his own?

IV. Curriculum Evaluation

A. Is there evidence concerning the magnitude of an experimental curriculum's effects in relation to the effects of other curricula?

B. If the differences in effects are small, can this outcome be attributed to the inadequate test questions, single-push approach, single score test?

C. Are appropriate sampling techniques--for students, teachers, and schools--used so that the evaluation findings can be generalized to classrooms across the country?

V. Validity of Content

A. Do the social science concepts and generalizations in a curriculum represent social reality accurately?

B. Does the curriculum recognize that several structures exist for any one discipline?

C. Is structure acknowledged to be dynamic?

D. Has the conception of structure(s) contained in a curriculum been analyzed by social scientists not involved in the development of the materials?

VI. Implementation Issues

A. Are the reading level and the complexity of ideas appropriate to the students?

B. What attitudes and skills do teachers need to teach the new

materials?

C. Is it wiser to have all teachers, preferences, use the new material opposed to the new materials to m courses?

D. What unintended consequences are introduction of new materials? A consequences desirable or undesirabl

E. What is the cost of the new materials

F. What new equipment or facilities a the new materials?

G. What funds can be allocated fo teachers?

Notes

1 Irving Morrissett et al., *Curriculum M* rev. ed., Intermediate Form (Boulder, Co The materials are available from the S Consortium, 855 Broadway, Boulder, Color

2 Alan Tom, *An Approach to Selectin Curricula* (St. Ann, Missouri: CEMREL, Inc.

3 *Ibid*., p. 107. Used with permission of Inc. Copyright 1970 by CEMREL, Inc., Road, St. Ann, Missouri 63074.

4 *Ibid*., p. 63. Used with permission o two categories were not part of the origina developed by the author and elaborated in C

5 Buckley R. Barns and Elmer U. Claws and Advanced Organizers: Implications for and Research in Social Studies Education, Curriculum Project (Athens, Georgia, 1971).

6 Donald W. Oliver and Fred M. Controversies: A Guide to Teaching the P

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E. What is the cost of the new materials per pupil each year?
F. What new equipment or facilities are necessary for teaching the new materials?
G. What funds can be allocated for in-service training of teachers?

Notes

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20 Econ 12 is a U.S. Office of Educat
Economic Education - funded project dev
College by Suzanne Wiggins Helburn an
published in 1972 by Addison-Wesley und
Society.

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Chapter IX District-Wide Curriculum Analysis

(Author's Note: The Analysis Section o
reprint of the rationale behind the 1971
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the approach being taken at the national
following components:

- Knowledge
- Abilities
- Valuing
- Social Participation)

Analysis

From *Social Studies Curricul*
I. A Basic Rationale for Social S

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as principal means of attaining that end. A
shared with other curricular areas, it cl
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Chapter IX
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m Analysis

(Author's Note: The Analysis Section of Chapter IX consists of a reprint of the rationale behind the 1971 *Social Studies Curriculum Guidelines*. It identifies the underlying assumptions of the *Guidelines* that knowledge, thinking, valuing, and social participation are essential components of a worthy social studies program and that a commitment to human dignity is the highest purpose any social studies program can serve. In the Analysis Section you will be introduced to a very powerful rationale for social studies education. Although the rationale differs in detail from the rationale underlying *Perspectives*, there are broad areas of agreement. The fact that there is agreement indicates that the approach to social studies education in *Perspectives* is compatible with the approach being taken at the national level. The rationale has the following components:

- o Knowledge
- o Abilities
- o Valuing
- o Social Participation)

Analysis

From *Social Studies Curriculum Guidelines*[1]
I. A Basic Rationale for Social Studies Education

Social Studies education has a two-fold purpose: enhancement of human dignity through learning and commitment to rational processes as principal means of attaining that end. Although this dual purpose is shared with other curricular areas, it clearly directs the particular purposes and the guidelines for social studies education.

Human dignity means equal access to the rights and responsibilities associated with membership in a culture. In American culture human dignity has long included ideas such as due process of law, social and economic justice, democratic decision-making, free speech, religious freedom. Today that meaning has been extended beyond its political and economic connotations and now includes self-respect and group identity. The idea of human dignity is clearly dynamic and complex, and its definition likely to vary according to time and place. The essential meaning, however, remains unchanged: each person should have the opportunity to know, to choose, and to act.

Rational processes refer to any systematic intellectual efforts to generate, validate, or apply knowledge. They subsume both the logical and empirical modes of knowing as well as strategies for evaluating and decision-making. Rationality denotes a critical and questioning approach to knowledge but also implies a need for discovering, proposing, and creating; the rational man doubts but he also believes. The ultimate power of rational processes resides in the explicit recognition of each person's opportunity to decide for himself in accord with the evidence available, the values he chooses, and the rules of logic. Therein lies the link between human dignity and the rational processes.

But without action, neither knowledge nor rational processes are of much consequence. This century has witnessed countless blatant violations of human dignity in the presence of supposedly well-educated populaces. It has frequently asserted that knowledge is power; however, the evidence that people who know what is true will do what is right is scarcely overwhelming. Commitment to human dignity must put the power of knowledge to use in the service of mankind. Whatever students of the social studies learn should impel them to apply their knowledge, abilities, and commitments toward the improvement of the human condition.

As knowledge without action is impotent, so action without knowledge is reprehensible. Those who seek to resolve social issues without competent understanding tend not only to behave irresponsibly and erratically but in ways that damage their own future and the human condition. Therefore, knowledge, reason, commitment to human dignity, and action are to be regarded as complementary and inseparable.

Knowledge

From its inception the school has been viewed as the social institution charged with transmitting knowledge to the young. Yet, despite the long-standing responsibility, it would be difficult to demonstrate that the school has handled this task well or that standards of accuracy and validity have been systematically applied to the information presented in the classroom. Nor can many schools assert that their curricula deal effectively with significant and powerful ideas.

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Furthermore, the knowledge utilized by the school has reflected the biases of the white middle class and has distorted the role of minority groups. Such distortions have prevented white people, as well as members of minority groups from fully knowing themselves and their culture. Such practices are clearly inconsistent with the requirements of individuals in an increasingly complex, pluralistic society.

Knowledge about the real world and knowledge about the worthiness of personal and social judgments are basic objectives of social studies instruction. Reliable beliefs are achieved by following the accepted canons of empirical inquiry, logical reasoning, and humanistic valuing, procedures clearly rooted in the twin values of rational process and human dignity. It would be naive, however, for social studies educators to disregard the fact that many people consider other ways of knowing such as revelation, common sense, and intuition as entirely legitimate and even desirable. A major task of social studies education is to demonstrate the power of rationally based knowledge to facilitate human survival and progress, while at the same time demonstrating that the means of persuasion to this point of view are quite as important as the ends.

The traditional and obvious sources of knowledge for social studies are the social science disciplines.* They are and should remain important sources. However, the reasons for deriving social studies knowledge from the social sciences are not self-evident. Careful thought ultimately justifies such knowledge on arguments revolving around the "needs" of individual students and of society for powerful ideas, dependable information, and reliable methods of inquiry. The question about appropriate sources of knowledge for social studies is indeed well-phrased in terms of the "needs" of students and society rather than the arbitrary and limiting assumption that social studies and the social sciences are identical.

Broadly based social issues do not respect the boundaries of the academic disciplines. The notion that the disciplines must always be studies in their pure form or that social studies content should be drawn only from the social sciences is insufficient for a curriculum intended to demonstrate the relationship between knowledge and rationally based social participation. It is true that the social sciences can make marked contribution to clarifying the basic issues which continue to require social attention. But the efforts of social scientists to develop an understanding of human behavior through research are not necessarily related to society's persistent problems and are seldom intended to arrive at the resolution of value conflicts or the formulation of public policy. In short, one can "do" social science outside the context of the social problems which constitute the major concern of the social studies curriculum. Thus, while there could be no social studies without the social sciences, social studies is something more than the sum of the social sciences.

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*We include history here, of course, under the social science rubric.

Other types of knowledge are also important contenders for inclusion in social studies. For instance, an additional and important source may be the growing tip of the culture which has hardly made its way into the research disciplines, but which is diffused through the mass media, sometimes in offbeat sources, and reflected in the arts. Such a growing tip is often found in the interests and values of students. In a rapidly changing society it is often young people who have greatest access to this emergent knowledge. If for no other reason, and there are other reasons, the rate of change alone makes it urgent that the social studies give serious consideration to the interests and values that students hold about themselves and society. Ideally, then, various sources of knowledge, namely the social sciences, the humanities, the natural sciences, the communication media, and the perceptions of students would all contribute to the social studies program.

The knowledge component of the curriculum envisioned in these guidelines serves three more particular functions. First, it provides historical perspective. A sense of the past serves as a buffer against detachment and presentism--living just for today--and thereby enables an individual to establish a cultural identity. Second, knowledge helps a person perceive patterns and systems in his environment. It is this ordering function which makes the social universe, even with its increasing complexity, more nearly manageable. Recently developed social studies programs utilizing fundamental concepts and generalizations from the social sciences represent a current effort to provide such structure. Third is the function of knowledge as the foundation for social participation. Without valid knowledge, participation in the affairs of society will be ineffectual and irresponsible.

In summary, the broad function of knowledge, whatever its source, is to provide the reservoir of data, ideas, concepts, generalizations, and theories which, in combination with thinking,

valuing, and social participation, can b
function rationally and humanely.

Abilities

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Abilities

Abilities provide the means of achieving objectives, and one who is able and skillful reaches his objective efficiently. Included in the ability concept are intellectual, data processing, and human relations competencies.

Intellectual skills, usually called thinking, have received widespread attention in the social studies curriculum only recently. The school continues to be largely ineffective in this dimension. Lower level intellectual operations such as memory often characterize assignments to pupils, questioning, and examinations. Inadequate attention is given to more complex cognitive processes such as analyzing, synthesizing, and evaluating. Inquiry-oriented approaches, which represent one effort to alleviate this situation, are receiving considerable attention in current educational literature, but extensive practice and support are not yet evident.

Thinking competencies serve several functions. In the first place, they provide the prime path to knowledge. They also enable an individual to ask significant questions; they permit him to analyze conflicts; they enhance his decision-making power; and they support his efforts to form and clarify values. Such intellectual skills are of paramount importance in resolving social issues. In democratic societies which place a high premium on responsible flexibility, well-developed thinking processes act as a buffer against intellectual rigidity and represent a vital link between knowledge and social participation.

Although thinking entails a great variety of intellectual operations, two facets, divergent thinking and valuing, require special comment, for they are not only central to social studies education but are also among the more puzzling terms which are employed in the field.

Divergent thinking (defined in terms of flexibility, spontaneity, and originality) seeks uncommon answers to difficult questions. Individuals make the most of their potential powers not by staying with what is common, regular, already known, but by encountering the challenge of the open-ended and unsolved and by attempting to cope with perplexing and sometimes frustrating situations. What is needed is a climate which encouraged fresh insights. But the need for divergence is not to be confused with irresponsible deviance of "just being different for its own sake." Divergent thinking is a necessary though not sufficient condition for creativity. Original thinking is highly demanding: (1) it relies on extensive knowledge, ideational fluency, and the ability to formulate and restructure questions; and (2) it requires the courage to risk uncertainty and error, and to express minority points of view.

Valuing must be considered, in part, as an intellectual operation. Social studies confronts complex questions rooted in conflicting attitudes and values. Therefore it is neither desirable nor possible for social studies teachers to attempt to establish a "value-free" situation in the classroom; student behavior, teacher behavior, subject matter and instructional materials all are the products of value-laden judgments. Any study of values should be conducted in a free and open atmosphere. Students must become experienced in discerning fact from opinion, objectivity from bias. Students need to learn to identify their own value assumptions along with those of others, to project and evaluate consequences of one value stance or another. When valuing is thought of as a rational process, students can be helped to clarify and strengthen their own commitments.

Data processing skills are often and rightly given considerable attention at the elementary school level. These skills include competence to locate and compile information, to present and interpret data, and to organize and assess source material. Social studies teachers should assume special responsibility for instruction in reading materials directly related to the social studies and in the use of the tools of the social scientists. However, higher levels of proficiency in data processing skills--for example, identifying hypotheses, making warranted inferences, and reading critically--cannot be attained unless they are incorporated in the curriculum of all grades, K-12. If provision is not made at all grade levels for the sequential development of these competencies, growth will be arrested at a needlessly low level, and students will be hampered in employing the more powerful extensions of these abilities.

A third aspect of ability development concerns the competencies associated with social behavior. Effective interpersonal relations seem to depend on a sensitivity to the needs and interests of others, adequately developed communication skills, and the ability to cope with conflict and authority. In the classroom and in the school at large, students should have abundant opportunities to work out social relationships at the face-to-face level. Students should have

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experience in dealing with highly charged emotional conflicts in the social arena as well as with calm, rational inquiry. They should undergo the demands placed on them both as leaders and followers and should learn to make contributions in both roles. When students hold minority views, they can learn to function as thoughtful critics, seeking to bring about needed reform through legitimate processes. Neither aloofness from obligation to other individuals nor the chaos created by anarchy is acceptable.

Abilities are not developed as a result of accumulating information, isolated drill sessions, or exhortations. Instead, these proficiencies are acquired only through real opportunities for constant practice and use, systematically planned for by curriculum workers and teachers. Equally important, however, is the recognition of skills as the critical bond between knowledge, valuing, and social participation.

Valuing

Social studies education neither can nor should evade questions of value. Value orientations are the foundations of social institutions, and the value positions of individuals and groups have consequences for action. Moreover, turmoil, discontent, and struggle for change characterize our times. Concern over a host of problems is heard on every hand and markedly so among those who are young. War, racism, environmental pollution, poverty, deteriorating cities, impersonal organizations, alienation, and an unfulfilled quality in living--society can contend with none of these without searching consideration of values.

Social studies education can, however, avoid mere indoctrination. Neither young people nor society will deal constructively with present social realities through blind acceptance of specified ways of behaving, or of particular positions on public issues, or even of basic cultural values. Substantial proportions of young people and their communities are objecting--and overtly--to the rigid requirements of uniformity. Limiting the school's role to indoctrination is not only ineffectual, but incompatible with the principles of the free society.

Still perplexing is the role of the school as an agent for inculcating in the young widely held societal norms, standards of behavior, and ideological preferences. The issue is clouded with conflicting attitudes held by various groups. Cultural pluralism in America rightly hinders the school from seeking or producing uniform values among its students. It is properly only one force influencing the values of the young.

However, what the school can contribute is impressive. It can help young people recognize that among men there are many sets of values rooted in experience and legitimate in terms of culture. Such a realization is a force against ethnocentrism.

The school can provide opportunities for free examination of the value dilemmas underlying social issues and problematic situations in the everyday lives of students. Students need systematic and supportive help in examining differences among other persons and groups and in clarifying the value conflicts within themselves. Students must come to understand that for all the importance of evidence, facts alone do not determine decisions, that there are times to suspend judgment, and that many problematic situations have no set answers. The expectation that problematic situations are open to inquiry coupled with increasing ability in the clarification and weighing of values contribute to a student's feeling of competence and sense of identity. We may even have faith that thoughtful sensitivity to one's own values and those of others will foster decent and humane values.

Moreover, the school can make clear its own valuing of human dignity by practicing it in the school as a whole and in social studies classrooms. The school itself is a social institution, and the values embedded in its daily operation can exert a powerful influence. Young children especially must learn the core values in the course of daily living; the school can hardly escape its responsibilities to them. Fair play and justice, free speech, opportunity for decision making, support for self-respect, choice, acceptance of the life styles of the community, group identity, the right to privacy, all these ought to be expected for all students and teachers in every classroom. Racism ought to be denied in every classroom. Schools have been more successful in professing the values associated with human dignity than in making them the order of the day. Indeed, in many schools the practice of those values would mean blandly ignoring basic cultural values.

Frank recognition that the school and its social studies programs cannot be value-free may foster the serious consideration of what the school's role ought properly to be.

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emocracy calls for individual behavior guided by the values of human dignity and rationality and directed toward the resolution of problems confronting society. The practices of the school and particularly of social studies programs have not provided for active and systematic student participation. Because social studies educators have usually limited their thinking to what has been described as "two-by-four pedagogy--the two covers of the textbook and the four walls of the classroom"--the potential applications of knowledge and thought have not been fully realized. A commitment to democratic participation suggests that the school abandon futile efforts to insultate pupils from social reality and, instead, find ways to involve them.

Social participation should mean the application of knowledge, thinking, and commitment in the social arena. An avenue for interaction and identification with society can build an awareness of personal competency--awareness that one can make a contribution--an ingredient essential for a positive self-concept. Programs ought to develop young adults who will say: "I know what's going on, I'm part of it, and I'm doing something about it."

Extensive involvement by students of all ages in the activities of their community is, then, essential. Many of these activities may be in problem areas held, at least by some, to be controversial; many will not be. The involvement may take the form of observation or information-seeking such as field trips, attending meetings, and interviews. It may take the form of political campaigning, community service or improvement, or even responsible demonstrations. The school should not only provide channels for such activities, but build them into the design of its social studies program, kindergarten through grade twelve.

Education in a democratic framework clearly requires that such participation be consistent with human dignity and with the rational processes. Such participation must be voluntarily chosen: no student should be required to engage in what he has not defined as desirable. Nor should social participation be undertaken without systematic, thoughtful deliberation. To do so would be to violate the values of human dignity and rational process. Educational institutions can make a significant contribution to society by providing students with the knowledge and experience necessary to be effective, singly or as part of organized groups, in dealing with social problems.

It is essential that these four curriculum components be viewed as equally important; ignoring any of them weakens a social studies program. The relationship among knowledge, abilities, valuing, and social participation is tight and dynamic. Each interacts with the others. Each nourishes the others.

Application

Application "A":

II. Guidelines

These Guidelines represent a set of standards for social studies programs. They are not intended to prescribe a uniform program or even to propose an ideal program. In a pluralistic and changing society no one such program could be prescribed even if more were known about the process of education than is presently available. Schools--their students, teachers, and communities--have basic responsibility for their own social studies programs. It is hoped that many will develop insights which go beyond the framework of standards set forth here.

1.0 The Social Studies Program Should Be Directly Related to the Concerns of Students.

1.1 Students should be involved in the formulation of goals, the selection of activities and instructional strategies, and the assessment of curricular outcomes.

1.2 The school and its teachers should make steady efforts, through regularized channels and practices, to identify areas of concern to students.

1.3 Students should have some choices, some options within programs fitted to their needs, their concerns, and their social world.

1.4 All students should have ample opportunity for social studies education at all grade levels, from K-12.

Students of all ages confront situations demanding knowledge and social skills. They are called upon constantly to identify, to interpret, to organize the vast quantities of social data everywhere around them. Students need to use this social knowledge perhaps as a person relating to neighbors and friends, a citizen of
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to neighbors and friends, a citizen of the school community, a consumer of goods and services, an active participant in an organization or movement. These situations are directly comparable to those confronted by adults. Students should rightfully expect that their social studies education will be helpful to them in coping with their social and political world.

Yet the need to know and understand may stem also from a basic curiosity, a desire to comprehend, and a quest for order and meaning in the universe. Therein lies a fundamental motivation for learning upon which any adequate program must build.

Consequently, opportunities for social studies education should be available to all students from the primary grades through high school, and not merely to some elite group, the intellectually able, perhaps, or the white middle class, and not merely to those who accept conventional subject matters or are satisfied with their own social situations. Young people should not be expected to fit themselves into uniform or rigid programs, those sanctioned merely by tradition, or designed without consideration of what matters to them.

In schools committed to human dignity, students are entitled to a voice, by one means or another, in shaping their education. All students are entitled to expect that they, their concerns, and their social origins have a place in the social studies curriculum.

2.0 The Social Studies Program Should Deal with the Real Social World.

2.1 The program should focus on the social world as it is, its flaws, its ideals, its strengths, its dangers, and its promise.

2.2 The program should emphasize pervasive and enduring social issues.

2.3 The program should include analysis and attempts to formulate potential resolutions of present and controversial problems such as racism, poverty, war, and population.

2.4 The program should provide intensive and recurrent study of cultural, racial, religious, and ethnic groups, those to which students themselves belong and those to which they do not.

2.5 The program should offer opportunities for students to meet, discuss, study, and work with members of racial and ethnic groups other than their own.

2.6 The program should build upon the realities of the immediate school community.

2.7 Participation in the real social world both in school and out should be considered a part of the social studies program.

The social studies program should enable students to examine the social world as it is, neither "all good" nor "all bad," neither all past nor all present, and certainly not bland. In too many social studies classrooms the social world is idealized, mythologized, far from reality. Three points need emphasis here.

First, these guidelines take the position that enduring or pervasive social issues such as economic injustice, conflict, racism, social disorder, and environmental imbalance are appropriate content for the social studies curriculum for grades K-12. The primary purpose of a social studies program is neither to advance the frontiers of knowledge nor to produce social scientists. Rather its task is to engage students in analyzing and attempting to resolve the social issues confronting them. To do so young people must draw on the content and methods of the social science disciplines as well as their own beliefs and considered values and, whenever and wherever appropriate, on such fields as the humanities and the natural sciences.

Second, the "real" social world varies greatly among people and places, yet classroom experiences often create a misleading impression of cultural uniformity. Many students come to view the world with knowledge drawn almost entirely from Western and middle-class traditions. But the majority of people are not white; although they may be influenced by the West, their cultures are neither Western nor dominated by the middle class. Morever, American society itself is pluralistic. The mores, roles, and expectations of cultural groups other than students' own should be identified and their implications and merits explored. To seek understanding of any culture without the perspective of its own set of values is to do an injustice to that cultu

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The students of social studies classrooms are themselves of diverse sub-cultural groups, all too frequently not taken into account in developing programs. Family and community studies, for example, may unwittingly attempt to promote normative behavior characteristic primarily of white, middle-class society. Classroom experiences may fail to fit, as they should, the life styles, the values, the aspirations, the perspectives of many students and their communities. Social studies programs must contribute to students' acceptance of the legitimacy of their own cultural group identity as well as the ways of others. Social studies programs which even inadvertently conceal the diversity of the social world tend to reinforce cultural bias and ethnocentricity.

Third, no program can successfully educate students for the real world by separating them from it. The school social system is as much a part of the students' real world as what occurs outside the school. Such techniques as role-playing, simulation, observation, and investigation are all promising means of learning to participate. Actual involvement in school, community, and larger public affairs, either individually or as part of organized group efforts, can break down the artificial barriers of classroom walls.

3.0 The Social Studies Program Should Draw from Currently Valid Knowledge Representative of Man's Experience, Culture, and Beliefs.

3.1 The program should emphasize currently valid concepts, principles, and theories in the social sciences.

3.2 The program should develop proficiency in methods of inquiry in the social sciences and in techniques for processing social data.

3.3 The program should develop students' ability to distinguish among empirical, logical, definitional, and normative propositions and problems.

3.4 The program should draw upon all of the social sciences such an anthropology, economics, geography, political science, sociology, the history of the United States, and the history of the Western and non-Western worlds.

3.5 The program should draw from what is appropriate in other related fields such as psychology, law, communications, and the humanities.

3.6 The program should represent some balance between the immediate social environment of students and the larger social world; between small group and public issues; among local, national and world affairs; among past, present, and future directions; and among Western and non-Western cultures.

3.7 The program should include the study not only of man's achievements, but also of those events and policies which are commonly considered contrary to present national goals, for example, slavery and imperialism.

3.8 The program must include a careful selection from the disciplines of that knowledge which is of most worth.

Recent and intensive research has produced what is popularly called "a knowledge explosion." Hence, it will be difficult indeed to close the gap between what is known and what is taught. Yet incongruities between scholarly knowledge and the content of ordinary social studies curriculum can not be allowed to persist.

Although efforts must be made to insure the accuracy of information used in classrooms, accurate information is not enough. Far more powerful are the concepts, principles, and theories of modern knowledge. It is these which students most need to understand.

Morever, modern bodies of knowledge are not fixed. Methods of inquiry, such as formulating and testing hypotheses, and techniques for processing social data, such as mapping, case studies, and frequency distributions, should have a place in classrooms.

Since it is patently impossible to "cover" all of man's knowledge of the social world, what is included must be most meaningful. Students need knowledge of the world at large and the world at hand, the world present and the world past. They must see man's achievements and man's failures. They must have for themselves what is of most worth out of the disciplines. Yet useful ideas from anthropology, economics, social psychology, and psychology are ordinarily underrepresented in social studies programs; ideas from political science and geography are often badly out-of-date. "School history" is often repetitive, bland, merely
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history" is often repetitive, bland, merely narrative, and inattentive to the non-Western world, it is distorted by ignoring the experiences of Blacks, Chicanos, native American Indians, Puerto Ricans, and Oriental Americans. Related fields such as law, biology, and the humanities are often omitted or not related to social affairs.

Focus on pervasive issues, problems which loom large in students' worlds, and basic questions which have meaning in students' lives can be helpful in deciding upon what to draw from the disciplines. Imaginative approaches to relating the power of scholarly fields and the issues of our times deserve staunch support.

4.0 Objectives Should Be Thoughtfully Selected and Clearly Stated in Such Form as to Furnish Directions of the Program.

4.1 Objectives should be carefully selected and formulated in the light of what is known about the students, their community, the real social world, and the fields of knowledge.

4.2 Knowledge, abilities, valuing, and social participation should all be represented in the stated objectives of social studies programs.

4.3 General statements of basic and long-range goals should be translated into more specific objectives conceived in terms of behavior and content.

4.4 Classroom instruction should rely upon statements which identify clearly what students are to learn; learning activities and instructional materials should be appropriate for achieving the stated objectives.

4.5 Classroom instruction should enable students to see their goals clearly in what is to be learned, whether in brief instructional sequences or lengthy units of study.

4.6 Objectives should be reconsidered and revised periodically.

Most curriculum guides and courses of study state what are termed objectives. Typical of such statements are these: "Students will come to appreciate their American heritage"; "Students will learn the differences between democratic and totalitarian forms of government." Such statements may serve as goals, but not as objectives. Although such goals may point to the general direction and intent of a program, they have limited utility in making instructional decisions. Worse yet, such conventional and general statements may get in the way of coming to grips with the crucial problem of what students ought to learn.

Probably no curricular decisions are more significant than those about basic purposes and their definition as stated objectives. What students are to learn must be carefully selected through searching and continuous consideration of what is known about the students themselves, the real social world, and the scholarly fields. Students themselves must participate in the process of selection. Students can not learn everything. Some selection will be made with or without sufficient consideration. Objectives selected without consideration are not likely to be of much worth.

Decisions about what is to be learned will have little influence until they are translated into statements of objectives formulated in terms of both behavior and content and at a level of specificity which permits recognition of students competencies when they have been attained. Knowledge, thinking and other abilities, valuing, and social participation can all be conceived in behavioral terms even if their definitions are not universally agreed upon. Statements of objectives become the basis for setting up learning activities, choosing instructional strategies, selecting instructional materials, and finding the degree to which students have been successful in learning.

Special mention should be made here of performance objectives. Such an objective names concretely the behavior-in-identified content which the student is to demonstrate as evidence of learning and states the minimum level of acceptable performance. Some knowledge and skill objectives in social studies can best be defined as concrete performance objectives, and instruction planned accordingly. Students and teachers alike can identify achievement or lack of it. Performance objectives are most readily developed for matters which have "a right answer" or "a most effective way of performing a task." That all kinds of objectives--indeed, many of the most important--can not be translated into concrete performance terms need not deny the usefulness of translating some, nor justify vague generalities as substitutes for clear statements. Nonetheless, social studies education should not be limited to what can be defined in concrete performance terms.

5.0 Learning Activities Should Engage
Actively in the Learning Process.

5.1 Students should have a wide and rich
appropriate to the objectives of their soc

5.2 Activities should include formulating h
by gathering and analyzing data.

5.3 Activities should include using know
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5.4 Activities should include those which
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5.5 Learning activities should be sufficien
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A social studies curriculum must
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5.0 Learning Activities Should Engage the Student Directly and Actively in the Learning Process.

5.1 Students should have a wide and rich range of learning activities appropriate to the objectives of their social studies program.

5.2 Activities should include formulating hypotheses and testing them by gathering and analyzing data.

5.3 Activities should include using knowledge, examining values, communicating with others and making decisions about social and civic affairs.

5.4 Activities should include those which involve students in the real world of their communities.

5.5 Learning activities should be sufficiently varied and flexible to appeal to many kinds of students.

5.6 Activities should contribute to the students' perception of teachers as fellow inquirers.

5.7 Activities must be carried on in a climate which supports students' self-respect and opens opportunities to all.

Scholars, teachers, educational theorists, and serious critics of education agree, almost universally, that students must be actively involved in the learning process at every level of education from kindergarten on. Modern programs without exception call for more active participation. Greater emphasis is placed on ability to devise questions and the means for answering them, to analyze and integrate knowledge, to propose and evaluate decisions. Conducting a disciplined attack on his own ignorance should be the principal means of an individual's education. Creative inquiry is both a potent instructional strategy and an essential competency. Actual mastery of knowledge, a legitimate but not sufficient goal of education, can best be attained when the knowledge is actively used by the learner.

A social studies curriculum must employ direct as well as vicarious means for learning. This principle is all too often neglected. There are geography classes without any form of field work and history classes without primary source material. Government classes ignore the student council and the workings of local government; a study of occupations goes on without the associated sights and sounds of real jobs; and attempts to deal with racism and poverty occur without emotional involvement. Students study about free speech without practicing it; they read about opportunity for all in sources unsuitable for some of them

Certainly classroom lecturing is less defensible today than it has ever been. Students now have extensive and reliable sources of knowledge from which they can find out for themselves. Education is more than a process of telling students what they need to know.

Social studies programs, then, must include a wide variety of learning activities with appeals to many sorts of students: making surveys; tabulating and interpreting data; acting out scripts; using reference tools; reading or writing poetry; role-playing; hearing and questioning classroom speakers; writing up a policy decision; using case studies; listening to music; making a collage; brainstorming; studying films; working in a community project; conducting an investigation; advocating a thought-out position; manipulating mock ups; simulating and gaming; making field trips; comparing points of view; studying social science books and articles; participating in discussions patterned on explicit strategies for behaviors such as communicating and valuing; and more. The purpose of such activities is not to set up what is merely clever or novel, but to offer opportunities for satisfying experience in what will lead to the objectives of instruction.

6.0 Strategies of Instruction and Learning Activities Should Rely on a Broad Range of Learning Resources.

6.1 A social studies program requires a great wealth of appropriate instructional resources; no one textbook can be sufficient.

6.2 Printed materials must accommodate a wide range of reading abilities and interests, meet the requirements of learning activities, and include many sorts of material from primary as well as secondary sources from social science and history as well as the humanities and related fields, from current as well as basic sources.

6.3 A variety of media should be available for learning through seeing, hearing, touching, and acting, and calling for thought and feeling.

6.4 Social studies classrooms should draw upon the potential contributions of many kinds o
organizations representing many poi
abilities.

6.5 Classroom activities should use the sc
learning laboratory for gathering socia
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6.6 The social studies program should ha
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Printed materials must be available
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Multiple media offers many avenues
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contributions of many kinds of resource persons and organizations representing many points of view and a variety of abilities.

6.5 Classroom activities should use the school and community as a learning laboratory for gathering social data and for confronting knowledge and commitments in dealing with social problems.

6.6 The social studies program should have available many kinds of work space to facilitate variation in the size of groups, the use of several kinds of media, and a diversity of tasks.

Learning in the social studies requires rich resources. No single textbook will do, especially one set up with the simple purpose of imparting information. Accomplishing objectives which represent all of the components of social studies education depends upon more information, more points of view, more appeals, more suitability to individual students.

Printed materials must be available for differing abilities in reading, differing needs for concreteness and abstraction. Students must have books, periodicals, basic references, case studies, graphs, tables, maps, articles, and literary materials suitable for the subject at hand. Yet important as reading and, indeed, verbal learning may be, they ought not to be overused in instruction.

Multiple media offers many avenues to learning. Films and sound-filmstrips; pictures; recording of speeches, discussions, and music; mock-ups; artifacts; models; audiotapes; dramatic scripts or scripts for role-playing; diagrams; simulation exercises; programs on television--these and others call upon the use of many senses, thought and feeling, and so enrich learning.

Moreover, resources need not be thought of simply as those of classrooms themselves. The walls between classrooms and the outside world need not be so confining. Students must be "out there," and the resources of community persons and organizations must be "in the schools."

Although the need for multiple media is no excuse for a smorgasbord approach, there is reason to recognize multiple paths to learning. No one sort of material and no one kind of resource will be satisfactory for all students, nor indeed for any one student at all times and for all purposes. Instructional resources must be suitable for the learning tasks at hand and for the students who are learning.

7.0 The Social Studies Program Must Facilitate the Organization of Experience.

7.1 Structure in the social studies program must help students organize their experiences to promote growth.

7.2 Learning experiences should be organized in such fashion that students will learn how to continue to learn.

7.3 The program must enable students to relate their experiences in social studies to other areas of experience.

7.4 The formal pattern of the program should offer choice and flexibility.

Structure in the social studies program has to do with the basic questions to be asked, the problems hopefully to be resolved, the patterns of behavior appropriate to the ends in view. Although far too little is known to identify definitively the processes of growth in social competencies or to state with certainty the superiority of any one sort of organization over another, some sort of flexible structure for the organization of experience is possible and desirable. It is likely that students will profit from experiences with different structures.

Both the social sciences and social issues contain structural elements. Basic concepts, principles, and methods in the social sciences can offer direction in organizing a study of human behavior. A proper focus on social issues requires identification of their causes, consequences, and possible solutions. Social studies programs may at times use one or the other of these organizations. Certainly social studies programs must demonstrate a reciprocal relationship among the social sciences, social issues, and action. However, it is clearly inadequate to limit programs to courses in the individual disciplines. The study of social issues drawing upon more than one discipline is frequently more suitable for the purpose of students in school. An issue arising out of modern society, for example, may call for the contributions of history, economics, and sociology as well as the humanities, law, and the natural sciences. Social issues are embedded in complex social conditions.

At times student concerns or those of their community or the requisites of active and effective social participation may become the base for some line of inquiry. Whatever the
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8.0 Evaluation Should be Useful, Syste
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base for some line of inquiry. Whatever the starting point, whatever the direction, structure must mean the students' own organization of their learning experiences. Social studies programs must offer more than mere accumulation of added information, even that subsumed under scholarly topics or social "problems," activities chosen and pursued out of momentary whim.

On the other hand, disorder and lack of direction stand in the way of continuous reorganization of experience. Moreover, it is time for a fresh look at the conventional pattern of subjects and formal course offerings. Schools ought to encourage mini-courses, or independent study, small group interest sections, specially planned days or weeks focused on social problems, alternative courses of study proposed by students, or other innovative plans for unfreezing the rigid school year. Structure can be used to promote the development of the tools and satisfactions which enable students to continue to learn.

8.0 Evaluation Should be Useful, Systematic, Comprehensive, and Valid for the Objectives of the Program.

8.1 Evaluation should be based primarily on the school's own statements of objectives as the criteria for effectiveness.

8.2 Included in the evaluation process should be assessment of progress not only in knowledge, but in skills and abilities including thinking, the process of valuing, and social participation--all the components of social studies education.

8.3 Evaluation data should come from many sources, not merely from paper-and-pencil tests, including observations of what students do outside as well as inside the classroom.

8.4 Regular, comprehensive, and continuous procedures should be developed for gathering evidence of significant growth in learning over time.

8.5 Evaluation data should be used for planning curricular improvement.

8.6 Evaluation data should offer students and teachers help in the course of learning and not merely at the conclusion of some marking period.

8.7 Both students and teachers should be involved in the process of evaluation.

8.8 Thoughtful and regular re-examination of the basic goals of the social studies curriculum should be an integral part of the evaluation program.

Social studies programs must be systematically and rigorously evaluated. As program objectives are revised and new practices introduced, the evaluation program must be changed to assess innovations in ways consistent with their purposes. The all too common paper-and-pencil tests of information do not yield data about problem-solving abilities, the valuing process, and social participation, or even, in many cases, that knowledge which is of most worth. Many sources of data, many evaluation techniques, in and out of classrooms, are needed. Evaluation should extend far beyond formal examinations to include, for example, anecdotal records, role-playing, interviews with samples of community people, and interaction schemes for analysis of classroom dialogue.

Occasional and sporadic attempts, and narrow and unreliable efforts in evaluation are insufficient since significant growth in learning is both cumulative and long-term.

Evaluation must include what is diagnostic, not only for groups of students but for individuals. It must be useful to students in the process of their learning--to all students and not merely to those who take to conventional schooling or who are college-bound. A helpful evaluation process ought to enable students to see what they can do as well as what they can not yet do. The process must clarify for teachers and others concerned what needs to be done to improve instruction and learning.

Evaluation must become not only a means of more effective instruction and learning, but a foundation for thoughtful formulation of basic purposes of social studies education.

9.0 Social Studies Education Should Receive Vigorous Support as a Vital and Responsible Part of the School Program.

9.1 Appropriate instructional materials, time, and facilities must be provided for social studies education.

9.2 Teachers should be responsible for tr
their own students promising innova
newer curricular plans, discove
participation.

9.3 Decisions about the basic purposes of
any school should be as clearly rel
immediate community as to those of

9.4 Teachers should participate in active
committees with decision-making
responsibilities.

9.5 Teachers should participate regularly
their professional competence in so
workshop, or inservice classes, or
reading, study, and travel.

9.6 Teachers and others concerned with
the schools should have consultants
studies available for help.

9.7 Teachers and schools should have a
district-wide policy statement on
professional responsibility.

Social studies education can not b
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9.2 Teachers should be responsible for trying out and adapting for their own students promising innovations such as simulation, newer curricular plans, discovery, and actual social participation.

9.3 Decisions about the basic purposes of social studies education in any school should be as clearly related to the needs of its immediate community as to those of society at large.

9.4 Teachers should participate in active social studies curriculum committees with decision-making as well as advisory responsibilities.

9.5 Teachers should participate regularly in activities which foster their professional competence in social studies education: in workshop, or inservice classes, or community affairs, or in reading, study, and travel.

9.6 Teachers and others concerned with social studies education in the schools should have consultants with competence in social studies available for help.

9.7 Teachers and schools should have and be able to rely upon a district-wide policy statement on academic freedom and professional responsibility.

Social studies education can not be successful without the conditions necessary for good instruction. One of the conditions is a supply of adequate resources. Social studies education needs far more than teachers with textbooks and blackboards. It requires maps, reference books, periodicals, audio and visual materials, field trips, guest lectures, and much more. The classroom should be conceived as a learning laboratory. Such a concept means not only quantities of materials and equipment but also additional demands on teachers' time and competence.

Teachers must have both opportunity and responsibility for active participation in the improvement of the curriculum. They must engage in activities contributing to their professional growth as social studies teachers if they are to offer their students and the community what is due them. Contemporary theories of learning and instruction necessitate breadth, depth, and much skill. The burden is especially heavy on elementary teachers who are expected to be competent in virtually all fields. The practice of assigning inadequately prepared teachers as social studies instructors persists and should be ended. In addition to social studies consultant help, the administration should provide the incentives, encouragement, and opportunities that will further professional and academic training.

School administrators should demonstrate a degree of support at least commensurate with the support given other segments of the curricular program and with the importance attached to the needs of society.

The nature of social studies education, especially in a pluralistic and free society, makes it peculiarly vulnerable to criticism from many sides. The right to responsible criticism is inherent in and invaluable to a democracy; this right must be protected. Demands that schools instill particular beliefs and practices or that they avoid the thoughtful consideration of controversial topics must be met with vigorous resistance.

Application "B": III. Checklist for Evaluating a Social Studies Program

This section provides a convenient evaluation outline for those who want to examine their own social studies program. Its use will furnish a profile of a program as it is, although the checklist will not specify all that is needed in assessment. The outline can be used for a given grade level or for a school or district-wide program.

The questions in this checklist are taken from the Guidelines. The questions are appropriate only insofar as those who use them endorse the Guidelines.

Evaluators should gather data from many sources. A probing and comprehensive evaluation would require data collected by sophisticated instruments. The letters following each Guideline question suggested probably the readiest and most obvious sources. The letter "R" suggests the use of materials such as curriculum reports

and plans, position statements, faculty
student newspapers, memos, records of i
able and used, and formal evaluation dat
petencies. The letter "T" suggests teach
"C" parents and community; and "O
classroom observation.

When the program profile has been m
tasks of interpreting and recommendi
highlight a pattern; students are insuffici
or learning resources inadequate, or purp
from the information and interpretation
to use in improving the social studies prog

Key

R=Written materials S

T=Teachers C

EVALUATION CHECK

RATING			S
Strongly	Moderately	Hardly At All	
			1.1 Are s form selecti asses outco
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and plans, position statements, faculty and student handbooks, student newspapers, memos, records of instructional materials available and used, and formal evaluation data collected on student competencies. The letter "T" suggests teachers; "S" suggests students; "C" parents and community; and "O" classroom and out-of-classroom observation.

When the program profile has been made from the checklist, the tasks of interpreting and recommending begin. The items may highlight a pattern; students are insufficiently involved, for example, or learning resources inadequate, or purposes unclear. What is learned from the information and interpretation of the checklist must be put to use in improving the social studies program.

Key

R=Written materials **S=Students**

T=Teachers **O=Observations**

EVALUATION CHECKLIST

RATING			SPECIFIC GUIDELINES
Strongly	Moderately	Hardly At All	
			1.1 Are students involved in the formulation of goals, the selection of activities, and the assessment of curriculum outcomes? S T
			1.2 Do the school and its teachers make steady effort, through regularized channels and practices, to identify areas of concern to students? S T
			1.3 Do students have choices within programs? S T
			1.4 Do all students have ample opportunity for social studies education at all grade levels? R T
			2.1 Does the program focus on the social world as it actually is? R T C

RATING			SPECIFIC GUIDELINES
Strongly	Moderately	Hardly At All	
			2.2 Does the program emphasize pervasive and enduring social issues? R T
			2.3 Does the program include analysis and attempts to formulate potential resolutions of present and controversial problems such as racism and war? R T
			2.4 Does the program provide intensive and recurrent study of cultural, racial, religious, and ethnic groups? R T C
			2.5 Does the program offer opportunities to meet and work with members of racial and ethnic groups other than their own? R T C
			2.6 Does the program build upon the realities of the immediate school community? R T C
			2.7 Is participation both in school and out considered a part of the program? R S C
			3.1 Does the program emphasize valid concepts, principles, and theories in the social sciences? R T
			3.2 Does the program develop proficiency in methods of inquiry in the social sciences and in techniques for processing social data? R T O
			3.3 Does the program develop students' ability to distinguish among empirical, logical,

RATING			S
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	2.5 Does the program offer opportunities to meet and work with members of racial and ethnic groups other than their own? R T C
	2.6 Does the program build upon the realities of the immediate school community? R T C
	2.7 Is participation both in school and out considered a part of the program? R S C
	3.1 Does the program emphasize valid concepts, principles, and theories in the social sciences? R T
	3.2 Does the program develop proficiency in methods of inquiry in the social sciences and in techniques for processing social data? R T O
	3.3 Does the program develop students' ability to distinguish among empirical, logical,

RATING			SPECIFIC GUIDELINES
Strongly	Moderately	Hardly At All	
			definitional, and normative propositions and problems? R T O
			3.4 Does the program draw upon all the social scinecces and the history of the United States and the Western and non-Western worlds? R T
			3.5 Does the program draw from what is appropriate in other related fields such as psychology, law, communications, and the humanities? R T
			3.6 Does the program represent some balance between the immediate social environment of students and the larger social world? R T
			3.7 Does the program include the study of man's achievements and those policies contrary to present national goals? R T
			3.8 Does the program include a careful selection of that knowledge of most worth? R T
			4.1 Are objectives carefully selected and formulated? R T
			4.2 Are knowledge, abilities, valuing, and social participation all represented in the objectives of the program? R T
			4.3 Are general statements of goals translated into specific objectives conceived in terms of behavior and content? R T

RATING			SPECIFIC GUIDELINES
Strongly	Moderately	Hardly At All	
			4.4 Are classroom instruction and materials based upon clearly stated objectives? R T O
			4.5 Does classroom instruction enable students to see their goals clearly in brief instructional sequences and lengthy units of study? T S
			4.6 Are objectives reconsidered and revised periodically? R T
			5.1 Do students have a wide and rich range of learning activities appropriate to the objectives of their program? R T
			5.2 Do activities include formulating hypotheses and testing them by gathering and analyzing data? R T O
			5.3 Do activities include the processes of making decisions about socio-civic affairs? R T O
			5.4 Do activities involve students in their communities? S T C
			5.5 Are learning activities sufficiently varied and flexible? T S
			5.6 Do students perceive their teachers as fellow inquirers?S
			5.7 Are activities carried on in a climate which supports students' self-respect and opens opportunities to all? S T O
			6.1 Does the program have a wealth of appropriate instructional resources? R T O
			6.2 Do printed materials

RATING			
Strongly	Moderately	Hardly At All	
			ac re le R
			6.3 Is fo se
			6.4 D co re or m
			6.5 D co la
			6.6 D av sp
			7.1 D or
			7.2 A or st to
			7.3 D st ex ot O
			7.4 D pr fl
			8.1 Is or of
			8.2 D pr

	SPECIFIC GUIDELINES
4.4	Are classroom instruction and materials based upon clearly stated objectives? R T O
4.5	Does classroom instruction enable students to see their goals clearly in brief instructional sequences and lengthy units of study? T S
4.6	Are objectives reconsidered and revised periodically? R T
5.1	Do students have a wide and rich range of learning activities appropriate to the objectives of their program? R T
5.2	Do activities include formulating hypotheses and testing them by gathering and analyzing data? R T O
5.3	Do activities include the processes of making decisions about socio-civic affairs? R T O
5.4	Do activities involve students in their communities? S T C
5.5	Are learning activities sufficiently varied and flexible? T S
5.6	Do students perceive their teachers as fellow inquirers?S
5.7	Are activities carried on in a climate which supports students' self-respect and opens opportunities to all? S T O
6.1	Does the program have a wealth of appropriate instructional resources? R T O
6.2	Do printed materials

RATING			SPECIFIC GUIDELINES	
Strongly	Moderately	Hardly At All		
				accommodate a wide range of reading abilities and interests, learning activities, and sources? R O
			6.3	Is a variety of media available for learning through many senses? R O
			6.4	Do classrooms draw upon the contributions of many kinds of resource persons and organizations representing many points of view? T O C
			6.5	Do activities use the school and community as a learning laboratory? T O C
			6.6	Does the program have available many kinds of work space? R O
			7.1	Does the program help students organize their experiences? R O
			7.2	Are learning experiences organized in such fashion that students learn how to continue to learn? R O
			7.3	Does the program enable students to relate their experiences in social studies to other areas of experience? T S O
			7.4	Does the formal pattern of the program offer choice and flexibility? R S
			8.1	Is evaluation based primarily on the school's own statements of objectives? R
			8.2	Does assessment include progress in knowledge, abilities,

RATING			SPECIFIC GUIDELINES
Strongly	Moderately	Hardly At All	
			valuing, and participation? R
			8.3 Does evaluation data come from many sources, inside and outside the classroom? R
			8.4 Are evaluation procedures regular, comprehensive, and continuous? R
			8.5 Are evaluation data used for planning curricular improvement? R T
			8.6 Do evaluation data offer students help in the course of learning? T S
			8.7 Are both students and teachers involved in the process of evaluation? S T
			8.8 Is regular re-examiniation of basic curricular goals an integral part of the evaluation? R T
			9.1 Does the school provide appropriate materials, time, and facilities for social studies education? R T C
			9.2 Do teachers try out and adapt for their own students promising innovations? R T
			9.3 Are the basic purposes of social studies education as clearly related to the needs of the immediate community as to those of society at large? R C
			9.4 Do teachers participate regularly in active social studies curriculum committees with both decision-making and advisory responsibilities? T

RATING			S
Strongly	Moderately	Hardly At All	
			9.5 Do regul foste social
			9.6 Do t consu R T
			9.7 Can upon stat freed respo

Note

1 Gary Manson et al., "Social Studie
National Council for the Social Studies T
Guidelines (Washington, D.C., 1971),
permission of the National Council for the

	SPECIFIC GUIDELINES
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	9.3 Are the basic purposes of social studies education as clearly related to the needs of the immediate community as to those of society at large? R C
	9.4 Do teachers participate regularly in active social studies curriculum committees with both decision-making and advisory responsibilities? T

RATING			SPECIFIC GUIDELINES
Strongly	Moderately	Hardly At All	
			9.5 Do teachers participate regularly in activities which foster their competence in social studies education? R T
			9.6 Do teachers have social studies consultants available for help? R T
			9.7 Can teachers and schools rely upon a district-wide policy statement on academic freedom and professional responsibility? R T C

Note

1 Gary Manson et al., "Social Studies Curriculum Guidelines," National Council for the Social Studies Task Force on Curriculum Guidelines (Washington, D.C., 1971), pp. 7-31. Reprinted by permission of the National Council for the Social Studies.

Part Three

Implementation Perspectives

Chapter X
Curriculum Revision Program

The methodological perspectives in
provide teachers an initial experience wi
curriculum materials. The analytical per
designed to aid teachers individually or col
analyze key aspects of the total s
implementation perspectives in Part III are
curriculum experience and analysis into
revision program. This program will provid
opportunity to apply their experience and
curriculum revision in their own classes an
will consist of a sequential 10-step curricul
program organization follows a general pro
places the teacher at the center of the curri

Although there are many approache
some formalized system is necessary
methodological and analytical perspecti
environment that is supportive of cu
implementation, and change. To date, the
reform movement has been its inabili
curriculum outputs into widescale educ
recognized this failure when he wrote:

> Social studies innovations are not light b
> from a university center and screwed into a sch
> New York to burn as brightly there. Perhaps a
> is the heart transplant: a great deal of attentio
> into which it will be placed or it will fail to fu
> failure of these programs to function as intende
> to an overly simplistic and mechanistic view of

The curriculum revision program o
designed to influence the direction of curri
the norms which influence the learnin
schools. Changing teacher behavior in the
element in raising educational norms o
unrealistic to think, however, that the tea
influence. The norms that work against c
attributed as well to educational settings w
classes, non-teaching duties, poor facilities
lack of administrative and community sup
against constructive change can also be
curriculum material that promotes confor

Chapter X
Curriculum
ion Program

The methodological perspectives in Part I were designed to provide teachers an initial experience with the new social studies curriculum materials. The analytical perspectives in Part II were designed to aid teachers individually or collectively to systematically analyze key aspects of the total school curriculum. The implementation perspectives in Part III are designed to coalesce this curriculum experience and analysis into a workable curriculum revision program. This program will provide the teachers of Iowa an opportunity to apply their experience and theoretical background to curriculum revision in their own classes and school districts. Part III will consist of a sequential 10-step curriculum revision program. The program organization follows a general problem-solving strategy and places the teacher at the center of the curriculum revision process.

Although there are many approaches to curriculum revision, some formalized system is necessary to weld the teachers' methodological and analytical perspectives into an educational environment that is supportive of curricular experimentation, implementation, and change. To date, the failure of the curriculum reform movement has been its inability to quickly place its curriculum outputs into widescale educational practice. Becker recognized this failure when he wrote:

> Social studies innovations are not light bulbs that can be unscrewed from a university center and screwed into a school in Nebraska, Oregon, or New York to burn as brightly there. Perhaps a better analogy for diffusion is the heart transplant; a great deal of attention must be given the systems into which it will be placed or it will fail to function . . . . The frequent failure of these programs to function as intended can perhaps be attributed to an overly simplistic and mechanistic view of educational change.[1]

The curriculum revision program outlined in Chapter X is designed to influence the direction of curriculum reform by changing the norms which influence the learning environment in Iowa's schools. Changing teacher behavior in the classroom is an important element in raising educational norms of a district. It would be unrealistic to think, however, that the teacher is the only normative influence. The norms that work against constructive change can be attributed as well to educational settings which include overcrowded classes, non-teaching duties, poor facilities, limited finances, and the lack of administrative and community support. The norms that work against constructive change can also be attributed to a type of curriculum material that promotes conformity, rigidity, and closure.

This curriculum is supported not because it is good, but because it is familiar, easy to defend, easy to administer, and inexpensive. If *Perspectives* is to be effective in bringing about a curriculum revision, it must overcome these barriers to change and establish an action-based curriculum revision program.

Analysis

This analysis section of Chapter X will outline the curriculum-revision model and summarize the processes, analytical questions and problems associated with various steps of the revision program. The application section of the chapter will elaborate on these processes, questions and problems in such a way that the model can be used in a district-wide effort to analyze, evaluate, and revise social studies curriculum.

The Curriculum Revision Model

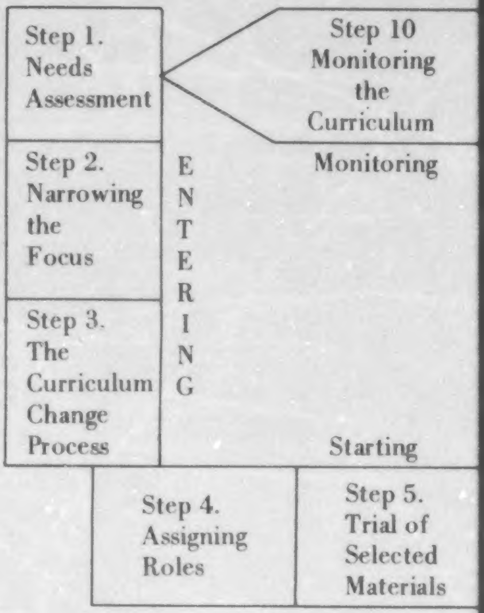
An Overview of the Model

The model summarized in Figure 1 is a process model of curriculum revision which will allow teachers to become change agents in curriculum. The most efficient use of teacher time in curriculum revision precludes the development of teacher-made materials, for most teachers have neither the experience nor the expertise, nor their school districts the financial resources for such an undertaking. The degree to which the new curriculum materials are used in the school is the degree to which the project content and methodology become viable behavioral alternatives to the curriculum that is presently being used.

Components of the Model

If the intent of *Perspectives* is to be carried out, its final thrust must come through the collective efforts of teachers and administrators at the district-wide level. The program outline shown in Figure 2 is an overview of the curriculum revision components that should terminate in a revised social studies curriculum for the districts using Part III of *Perspectives*.

Figure 1
Curriculum Revision


Step 1. Needs Assessment
Step 10 Monitoring the Curriculum
Monitoring
Step 2. Narrowing the Focus
E N T E R I N G
Step 3. The Curriculum Change Process
Starting
Step 4. Assigning Roles
Step 5. Trial of Selected Materials

* * *

Implementation of

Figure 3 establishes the type of c
to get the revision program started. It su
responsibilities, the type of leadership, ar
the teachers will be initiating.

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easy to administer, and inexpensive. If
ve in bringing about a curriculum revision,
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Curriculum
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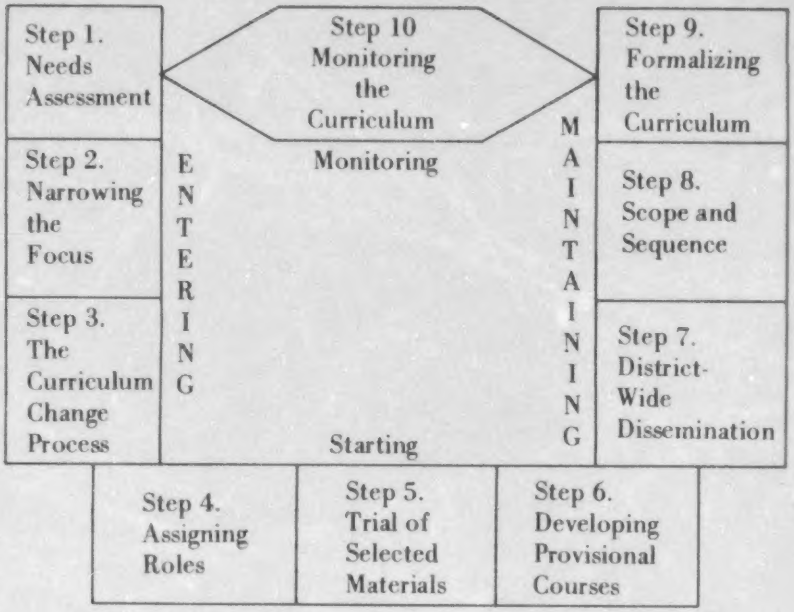
Figure 1
Curriculum Revision Model


Step 1. Needs Assessment
Step 10 Monitoring the Curriculum
Step 9. Formalizing the Curriculum
Monitoring
Step 2. Narrowing the Focus
ENTERING
MAINTAINING
Step 8. Scope and Sequence
Step 3. The Curriculum Change Process
Step 7. District-Wide Dissemination
Starting
Step 4. Assigning Roles
Step 5. Trial of Selected Materials
Step 6. Developing Provisional Courses

* * *

Implementation of the Model

Figure 3 establishes the type of committee structure needed to get the revision program started. It suggests, as well, the ranges of responsibilities, the type of leadership, and the scope of the program the teachers will be initiating.

Figure 2

Outline of the Curriculum Revision Components

Steps	Processes	Analytical Questions	Problems
Step 1: Needs Assessment	Identifying a concern	Where are we? What needs do we have? Should we revise?	The need for broad parti The need for broad supp
Step 2: Narrowing the Focus	Clarifying the problem	What should we revise? How much should we revise? What priorities should we establish?	Communication with the Communication with stu Communication with adm
Step 3: The Curriculum Change Process	Developing a strategy for change	What change strategy should be followed? What new materials should be used? What educational setting should be considered?	The model trap Innovation as process not
Step 4: Assigning Roles	Organizing the problem	What are the characteristics of the change agent? What sustains a climate of change? What roles should be assigned?	Teachers and educational Students and educational

(Continued)

Figure 2

Outline of the Curriculum Revision Components

Processes	Analytical Questions	Problems
Identifying a concern	Where are we?	The need for broad participation
	What needs do we have?	The need for broad support
	Should we revise?	
Clarifying the problem	What should we revise?	Communication with the community
	How much should we revise?	Communication with students
	What priorities should we establish?	Communication with administration
Developing a strategy for change	What change strategy should be followed?	The model trap
	What new materials should be used?	Innovation as process not product
	What educational setting should be considered?	
Organizing the problem	What are the characteristics of the change agent?	Teachers and educational change
	What sustains a climate of change?	Students and educational change
	What roles should be assigned?	

(Continued)

Steps	Processes	Analytical Questions	Problems
Step 5: Trial of Selected Materials	Gathering and analyzing data	How can teachers evaluate the innovation? How can students evaluate the innovation?	Formalizing the Evaluatio Formalizing the Communi Network
Step 6: Developing Provisional Courses	Seeking action alternatives	How can the curriculum be formalized? How can the new curriculum be disseminated?	Program Development Str Program Dissemination St
Step 7: District Wide Dissemination	Testing alternatives	How does the innovation reflect the initial rationale and objectives of the program?	The Responsibility for Ch
Step 8: Scope and Sequence	Modifying	What alternatives are available?	Breaking with the Past
Step 9: Formalizing the Curriculum	Sharing	Can change be built into curriculum?	Sharing Innovation Efforts

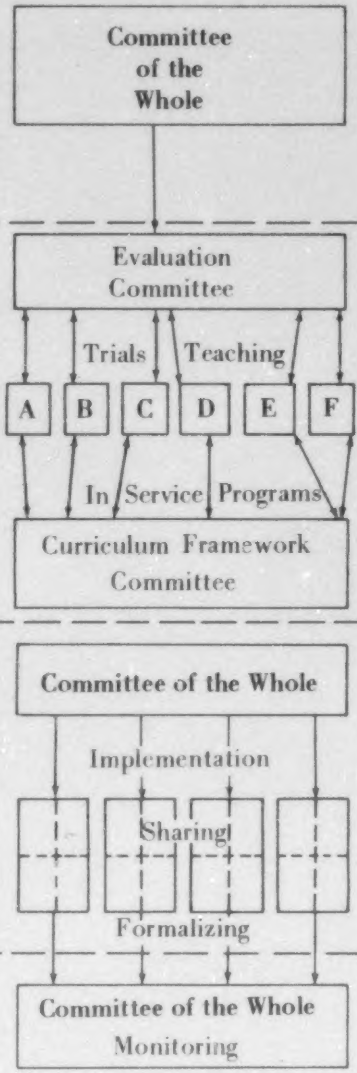
(Continued)

Processes	Analytical Questions	Problems
hering and analyzing ata	How can teachers evaluate the innovation?	Formalizing the Evaluation Process
	How can students evaluate the innovation?	Formalizing the Communication Network
king action lternatives	How can the curriculum be formalized?	Program Development Strategies
	How can the new curriculum be disseminated?	Program Dissemination Strategies
ting alternatives	How does the innovation reflect the initial rationale and objectives of the program?	The Responsibility for Change
difying	What alternatives are available?	Breaking with the Past
ring	Can change be built into curriculum?	Sharing Innovation Efforts

(Continued)

Steps	Processes	Analytical Questions	Problems
Step 10: Monitoring the Curriculum	Revising	What changes can be anticipated?	Anxiety Over Change

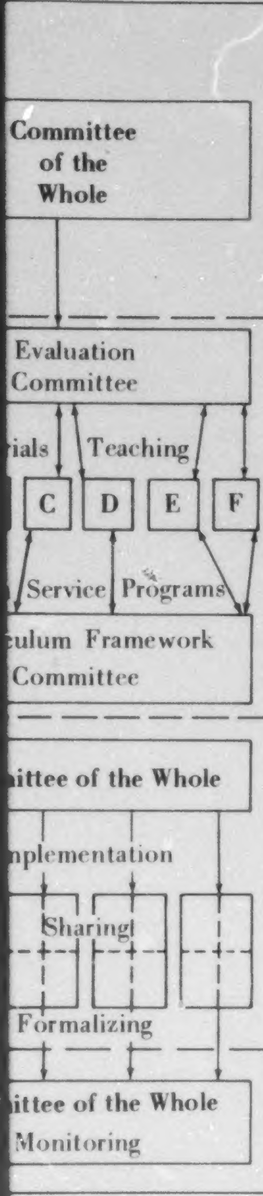
Figure 3
Committee Structure


Committee of the Whole
Evaluation Committee
Trials
Teaching
A
B
C
D
E
F
In
Service
Programs
Curriculum Framework Committee
Committee of the Whole
Implementation
Sharing
Formalizing
Committee of the Whole
Monitoring

Steps	Curriculum Revision Committee	Membership	Leadership	
Needs Assessment 1. Narrowing the Focus 2. The Curriculum Change Process 3.	Entering	● All Social Studies teachers directly or indirectly affected by the revision program.	● A chairperson chosen by the total committee or an administrator responsible for curriculum in the target areas.	● Asse ● Dete acti ● Arti forn prog
Assigning Roles 4. Trial of Selected Materials 5. Developing Provisional Courses 6.	Starting	● Evaluation Committee: made up of at least one trials teacher from each subject or grade level engaged in the materials trials. ● Trials teachers work individually in their own classrooms. ● Curriculum Framework Committee: Replaces Evaluation Committee--could be same membership as the Evaluation Committee.	● A chairperson chosen by the trials teachers. ● Teachers responsibility to implement materials and accompanying evaluation instruments.	● Dev ● Exc diss ● To v mat of st
District-wide Dissemination 7. Scope and Sequence 8. Formalizing the Curriculum 9.	Maintaining	● All Social Studies teachers involved in the revision. ● All teachers grouped into grade level and subject matter areas.	● The same chairperson as before. ● Leaders selected for each grade level and/or subject matter area.	● To Fra ● Tea pro ma ● Wri stu
Monitoring the Curriculum 10.	Monitoring	● All social studies teachers.	● The individual teacher as change agent.	● Tes vati cur

Figure 3
Committee Structure

um Revision Committee


Committee of the Whole
Evaluation Committee
ials
Teaching
C
D
E
F
Service
Programs
ulum Framework Committee
ittee of the Whole
nplementation
Sharing
Formalizing
ittee of the Whole
Monitoring

	Membership	Leadership	Function
Entering	● All Social Studies teachers directly or indirectly affected by the revision program.	● A chairperson chosen by the total committee or an administrator responsible for curriculum in the target areas.	● Assess the existing curriculum. ● Determine needs and focus on action to be taken. ● Articulate action through a formalized curriculum change program.
Starting	● Evaluation Committee: made up of at least one trials teacher from each subject or grade level engaged in the materials trials. ● Trials teachers work individually in their own classrooms. ● Curriculum Framework Committee: Replaces Evaluation Committee--could be same membership as the Evaluation Committee.	● A chairperson chosen by the trials teachers. ● Teachers responsibility to implement materials and accompanying evaluation instruments.	● Develop inservice program. ● Exchange information and disseminate findings. ● To weave the experimental materials into provisional courses of study.
Maintaining	● All Social Studies teachers involved in the revision. ● All teachers grouped into grade level and subject matter areas.	● The same chairperson as before. ● Leaders selected for each grade level and/or subject matter area.	● To review the work done by the Framework Committee. ● Teach, evaluate & articulate provisional courses into permanent courses of study. ● Write a district-wide social studies syllabus.
Monitoring	● All social studies teachers.	● The individual teacher as change agent.	● Testing and sharing new innovation. Constantly revising curriculum as needed.

Application

This application section will elaborate on each of the 10 steps which make up the curriculum-revision program. Each step is subdivided into components which treat the processes involved in the step, the analytical questions appropriate to the step, and the problems associated with the step. Taken together the steps contain all the directions necessary to implement the revision program in the schools. Before the program is started, however, it would be necessary to review the program as it is outlined in Figures 1 , 2 , and 3 (of Step 1, Needs Assessment).

Step 1: Needs Assessment (See figure 2 , p. 193 .)

A. Processes (Identifying a Concern)

If *Perspectives* is effective in preparing teachers for curriculum change, it will have little impact on the total curriculum unless it leads to collective teacher and administrative action. A logical place to begin any curriculum revision is with an analysis of the existing social studies program. Before this analysis can be made, however, it will be necessary to present the existing curriculum in a highly visual and systematic manner. Follow the directions suggested by the analytical questions to determine where you are in regards to the existing social studies curriculum.

B. Analytical Questions

1. Where are we?

In order to present the existing curriculum in some sort of systematic manner, organize the social studies staff into teams representing grade levels or subjects taught in the curriculum. Provide each team with a five- or six-foot length of butcher paper and a felt tip pen. Have the teams fill in their sheets of paper with a description of their semester- or year-long courses. The descriptions should be limited to a thumbnail sketch of each unit or activity that makes up the various courses. The sheets might look like the example provided in Figure 4 . Once each of the

teams completes its ind
tape the sheets of butch
each grade is represented
the curriculum. Once t
outlined across the fron
"Where are we?" in relatio

- Nature of the
  representative
  science disciplin
- Gaps, overla
  dominance of hi
- Needed duplica
  or skills.

2. What needs do we have?

The first encounter with t
will point out broad ar
curriculum. These conce
the group leader as
blackboard. A more deta
however, before specific n
a grade-to-grade basis. F
using butcher paper and f
subject into its curriculu
the more detailed nature
necessary to review
Perspectives before beginn
suggested below on page 1

- Once the teams
  charts for each
  the charts in seq
- The discussi
  breakdown sh
  guidelines outli
  question posed
  should apply
  represented.
- Specific problem
  should be recor
  headings already
  When a problem

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tion will elaborate on each of the 10 steps
urriculum-revision program. Each step is
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estions appropriate to the step, and the
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ssessment).

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teams representing grade levels or subjects
the curriculum. Provide each team with a
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the teams fill in their sheets of paper with a
of their semester- or year-long courses.
iptions should be limited to a thumbnail
each unit or activity that makes up the
ourses. The sheets might look like the
rovided in Figure 4 . Once each of the

teams completes its individual subject summaries, tape the sheets of butcher paper to the wall so that each grade is represented in the order it is taught in the curriculum. Once the subject summaries are outlined across the front wall, pose the question "Where are we?" in relation to:

- Nature of the program. Is, for example, a representative cross-section of social science disciplines, 7-12, present?
- Gaps, overlaps, duplications (e.g., dominance of history/geography).
- Needed duplication of content, attitudes, or skills.

2. What needs do we have?

The first encounter with the subject summary outline will point out broad areas of concern within the curriculum. These concerns should be recorded by the group leader as topical headings on the blackboard. A more detailed assessment is needed, however, before specific needs can be determined on a grade-to-grade basis. Follow the same procedure using butcher paper and felt tip pens to reduce each subject into its curriculum components. Because of the more detailed nature of the analysis, it may be necessary to review appropriate sections of *Perspectives* before beginning the type of flow chart suggested below on page 199.

- Once the teams have completed the flow charts for each subject or grade level, tape the charts in sequential order to a side wall.
- The discussion of the curriculum breakdown should follow the NCSS guidelines outlined in Chapter IX. Each question posed in the evaluation checklist should apply to all the subjects represented.
- Specific problems raised by the questions should be recorded under the appropriate headings already listed on the blackboard. When a problem cannot be subsumed under

(Text continued on page **200**)

Figure 4

Grade 7	Grade 8	Grade 9	Grade 10	Grade 11
Unit I (Title)	Unit I (Title)	Unit I (Title)	Unit I (Title)	Unit I (Title)
Sub-Topics	Sub-Topics	Sub-Topics	Sub-Topics	Sub-Topics
Unit II (Title)	Unit II (Title)	Unit II (Title)	Unit II (Title)	Unit II (Title)
Sub-Topics	Sub-Topics	Sub-Topics	Sub-Topics	Sub-Topics
Unit III (Title)	Unit III (Title)	Unit III (Title)	Unit III (Title)	Unit III (Title)
Sub-Topics	Sub-Topics	Sub-Topics	Sub-Topics	Sub-Topics

PLANNING PERSPECTIVES*

World Geography

Grade 7

Rationale: Geography can help students think more critically, be more responsible for the choices they make, be bet to insure survival, and be better able to utilize concepts from geography as a way of understanding and shaping their w

Unit 1

Learning Activity [†]	General Objectives	Key Concepts	Instructional Procedures
The Eskimo sled activity–five days. (Introduction to a unit on culture.)	A. Cognitive–to understand the impact of technology on culture. B. Affective–to appreciate culture as a factor in making man human. C. Skill–to practice the cognitive tasks of grouping, classifying, and applying concepts.	(Macro-Concept) Interdependence (Micro-Concepts) Resources Technology Structure Function	A. Teaching Strategies Discrepant data Directed discussion Writing evaluations B. Instructional Sequence Introduce, reinforce, shatter, and rebuild stereotype that "Western technology is superior". Developing, inferring, generalizing, and applying concepts
"Different ideas about Cattle," from Unit 3. **High School Geography Project**–four days.	A. B. C.		A. B.

---

*Planning Perspectives--Although this chart only deals with Unit 1, development of units into specific learning activities would take considerable time if it was done in a general meeting. A better approach might be to assign this planning task before the meeting, and have teachers bring the completed chart to the meeting.

†This chart supports the idea in Perspective learning activities, rather they should adapt existing curricular resources available to them. objectives can evolve from the ideas inherent in utilize.

PLANNING PERSPECTIVES*

World Geography

help students think more critically, be more responsible for the choices they make, be better able to use knowledge
tter able to utilize concepts from geography as a way of understanding and shaping their world.

General Objectives	Key Concepts	Instructional Procedures	Instructional Materials & Media
A. Cognitive—to understand the impact of technology on culture.	(Macro-Concept) Interdependence	A. Teaching Strategies Discrepant data Directed discussion Writing evaluations	Eskimo Cards—Autumn River Camp, Pt. II from MACOS.
B. Affective—to appreciate culture as a factor in making man human.	(Micro-Concepts) Resources Technology Structure Function	B. Instructional Sequence Introduce, reinforce, shatter, and rebuild stereotype that "Western technology is superior". Developing, inferring, generalizing, and applying concepts	Tools students bring from home—metal coat hangers.
C. Skill—to practice the cognitive tasks of grouping, classifying, and applying concepts.			Cognitive and affective evaluation instruments.
A.		A.	
B.		B.	
C.			

ough this chart only deals with Unit I,
fic learning activities would take considerable
meeting. A better approach might be to assign
eeting, and have teachers bring the completed

†This chart supports the idea in Perspectives that teachers should not write learning activities, rather they should adapt and modify activities from the existing curricular resources available to them. Because of this your own general objectives can evolve from the ideas inherent in the activities you have chosen to utilize.

(Continued from page 197)

existing headings, new topical headings should be created. Once the curriculum has been assessed and the problems recorded on the chalkboard, some very hard questions should be asked of the curriculum. Smith[2] outlines seven broad considerations that could be debated when determining educational need. They include:

a. The overall philosophy of the social studies program.
b. Scope and sequence balance.
c. Timeliness of topics.
d. Provision for active student involvement.
e. Provision for skill development.
f. Meeting individual differences among students.
g. Evaluation of progress in social studies.

3. Should we revise? A thorough debate on the NCSS guidelines and the Smith questions would be a useful entry-strategy if teachers in the district were committed to changing their curriculum. If this commitment is lacking, a philosophical debate would be academic rather than functional. The teachers who have completed Part I and II of *Perspectives* have had experience in developing a rationale for the units they developed. As a group, try to develop a working draft of a district-wide social studies rationale. In all likelihood, this rationale will begin with the teacher's own philosophy of education, but it must broaden out to encompass the views of the group and the problems inherent in the existing curriculum. A model rationale is contained in the NCSS guidelines, but it should be consulted after, rather than before the district rationale is developed. Once the rationale is completed it will provide insight into the question: "Shall we revise?"

C. Problems

1. The need for broad participation

An effective district-wide revision program should initially involve all the social studies teachers affected
by the innovation. *Perspec*
the 7-12 areas of the cur
model could accommodate
Although the initial workin
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Step 2: Narrowing the Focus (See figure

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B. Analytical Questions

1. What should we revise?
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2. How much should we revise

(Continued from page 197)

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by the innovation. *Perspectives* has concentrated on the 7-12 areas of the curriculum, but the change model could accommodate revision on a K-12 basis. Although the initial working group may be unwieldly it is of paramount importance that every teacher be involved in the decisions required by Steps 1-3 of the revision program. Later stages of the model require small but nonetheless representative action groups.

2. The need for broad support

Success in implementing a revision program requires careful preparation. Support for the program would be aided if teachers were allowed to work with curriculum innovation in a non-threatening environment. Preparation of this type would follow if teachers have completed Part I and II of *Perspectives*. If *Perspectives* was used on an inservice basis it would be easy to reconstitute the program focus from its original concern with teacher education to a new concern with curriculum revision in Part III.

Step 2: Narrowing the Focus (See figure 2 , p. 193 .)

A. Processes (Clarifying the Problem)

Most teachers do want to improve their teaching. They would like to ask better questions, involve more students, raise levels of thought in their classrooms, increase student interest, and address meaningful social issues. If the existing curriculum prevents them from doing these things, then the curriculum needs to be revised. Step 2 of the curriculum revision model requires teachers to enter into the difficult, but necessary task of decision-making.

B. Analytical Questions

1. What should we revise?

By Step 1 of the revision program the group will have undertaken a thorough review of the present curriculum and will have listed the aspects of the program that need revision. During Step 2 it would be helpful for the group to rank order the list of curriculum needs from most to least important and and to disseminate this list asking for feedback from all the parties concerned with social studies curriculum revision.

2. How much should we revise?

Support for a curriculum revision must be broad and its base should include administrators, teachers, students, and members of the community. The type of community sets the broadest limits on any experimental program. A program developed for an industrial city like New York or Chicago would not necessarily fit a rurally-oriented district in Iowa. A more refined and detailed set of parameters for change can be gained from the students themselves. The narrowest parameters for change are established by school administrators who are financially accountable to their boards of education. Success demands that administrative staff show more than a passive acceptance of the innovation but instead, an active support of it.

The decision to either begin or terminate the revision program is an important part of the entry strategy. The wisdom of the choice will be determined in large part by how thoroughly evidence was marshalled on all sides of the dialogue. If there is widespread dissatisfaction with the existing curriculum, and the cost in time, resources, and human energy is not prohibitive, the program can move ahead and the curriculum committee can formalize its educational priorities.

3. What priorities should we establish?
   - Based on the feedback from students, teachers, administrators, and people in the community, the original list of needs and concerns should be broadened or narrowed to reflect the new input of information.
   - These needs should then be broken into long range and short range goals.
   - For the purposes of classification short range goals should be defined as ones that can be accomplished within a year.
   - Long range goals should be ones that can be accomplished in three years or less.
   - By this point in time a much more realistic set of priorities can be established for both the short and long range goals of the revision program.
   - Target dates should
priorities printed and
concerned with the
communication cann

C. Problems
   1. Communication with the
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priorities should be made
with the school board.
   2. Communication with Stud
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their curriculum can trans
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following questions: What
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program? How would you
are sensitive to student n
type of change desired by s
   3. Communication with Admi
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      a. Reducing teacher ove
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      b. Supporting policies

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program.

- Target dates should be decided on and the new priorities printed and disseminated to the people concerned with the revision. The importance of communication cannot be stressed enough.

C. Problems

1. Communication with the community

All too often change is viewed as product rather than process. If innovation is a result of continuous process of adaptation and change rather than the interjection of isolated products the community will be more hospitable toward innovation in general. Proposed changes should be presented informally to parents at PTA meetings, at open houses or through specially constituted information meetings. At these meetings the curriculum planning groups report on the status and needs of the social studies program. When possible, innovative materials and methods should be demonstrated as to better inform the community of the nature of the proposed changes. A more formal presentation of the status, needs and priorities should be made before an open meeting with the school board.

2. Communication with Students

Questionnaire data on what students think about their curriculum can translate the general feelings of the community into much more specific terms. A simple and effective questionnaire might include the following questions: What is wrong with the present social studies program? What is "right" with this program? How would you improve it? Teachers who are sensitive to student needs can also articulate the type of change desired by students.

3. Communication with Administration

Evidence of active administrative support was defined by the Ann Arbor Conference to include such things as:

a. Reducing teacher overload so that there is time and energy to consider and use new curriculum materials.

b. Supporting policies of released time so that teachers may observe demonstration of new curricula.

c. Providing time and leadership for inservice training.

d. Budgeting for social studies materials such as laboratory materials to get away from the textbook concept.

e. Actively exploring the implications for inquiry-oriented teaching of such innovations as modular scheduling, team teaching, using older students as aides, and involving paraprofessionals?[3]

Step 3: The Curriculum Change Process (See figure 2, p. 193.)

A. Processes (Developing a strategy for change)

It is important to realize that change cannot be accomplished by mere prescription, for it involves the alteration of peoples' deep-seated value systems. The curriculum-change process used throughout Chapter X is based on a problem-solving model developed in 1967 at a conference of social science educators and project directors in Ann Arbor, Michigan. The contribution of the project authors is most notable in the research and development phases of curriculum innovation. The model was designed to augment their least successful efforts in the areas of diffusion and implementation.

B. Analytical Questions

1. What change strategy should be followed?

The curriculum revision program outlined in Figure 5 takes account of the nature of the new curriculum materials and the educational setting into which they are placed. It is the interaction of these two variables with the already demanding educational task of revision that will present the greatest obstacles to curriculum reform. The format of the curriculum revision program suggests a research posture where new materials are tested and then considered for final adoption or adaptation. The format is not conducive to a curriculum revision imposed on the district; nor is it conducive to the blanket adoption of a single textbook series, although that could well be the final decision of the program participants.

2. What new materials should b
Because the revision mo
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committee should be famili
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least three levels of involve
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Part I of *Perspectives* requi
with many of the new ma
involvement with material
particularly in the chapter
materials analysis. New mate
methods of selection,
differentiate materials in t
objectives, content, te
evaluation design. Part III
teachers the opportunity to
their existing curriculum
materials to correct these
materials for trial would b
each participant in the revi
entire semester or year-lo
where money is a problem,
purchased, or in cases wher
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among a number of the t
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provided some significant pi
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program.

3. What educational setting sho
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following points:

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es, although that could well be the final
e program participants.

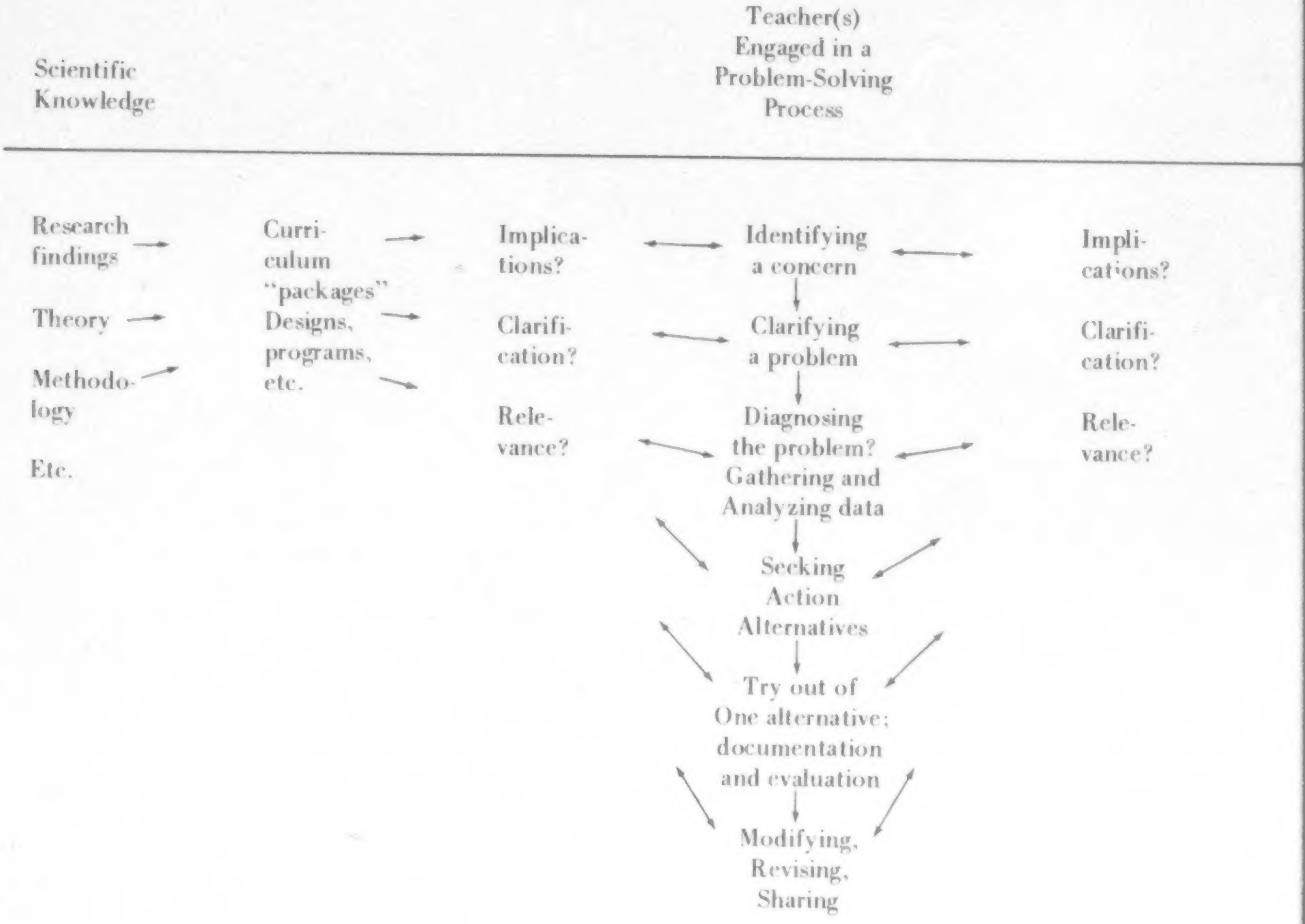
2. What new materials should be used?
Because the revision model is based on the experimental use of new materials as part of the change process, it is important that good materials be selected for the limited school trials. By this time the committee should be familiar with a wide range of alternative curricula, for they have passed through at least three levels of involvement with the new social studies. Inservice programs like the one contained in Part I of *Perspectives* required teachers to interact with many of the new materials. A more detailed involvement with materials came out of Part II, particularly in the chapter dealing with curriculum materials analysis. New materials require equally new methods of selection, enabling teachers to differentiate materials in terms of their rationale, objectives, content, teaching strategies, and evaluation design. Part III of *Perspectives* provides teachers the opportunity to isolate weaknesses within their existing curriculum and draw upon new materials to correct these inadequacies. Selecting materials for trial would be relatively expensive if each participant in the revision program purchased entire semester or year-long projects. In districts where money is a problem, selected units could be purchased, or in cases where the units could not be purchased separately, one project could be divided among a number of the teachers. It is important, however, that every teacher in the program be provided some significant piece of curriculum to use as part of the problem-solving strategy of the revision program.

3. What educational setting should be considered?
Even the most carefully planned revision program will falter if the educational setting is not favorable to change. Becker has outlined several revision guidelines which will aid in making the curriculum revision work in the school. In addressing the questions of implementation, continuity and followup he lists the following points:

a. Consider how all the elements in the present

Figure 5

A Problem-Solving, Research Utilizing Model of the Curriculum Change Process

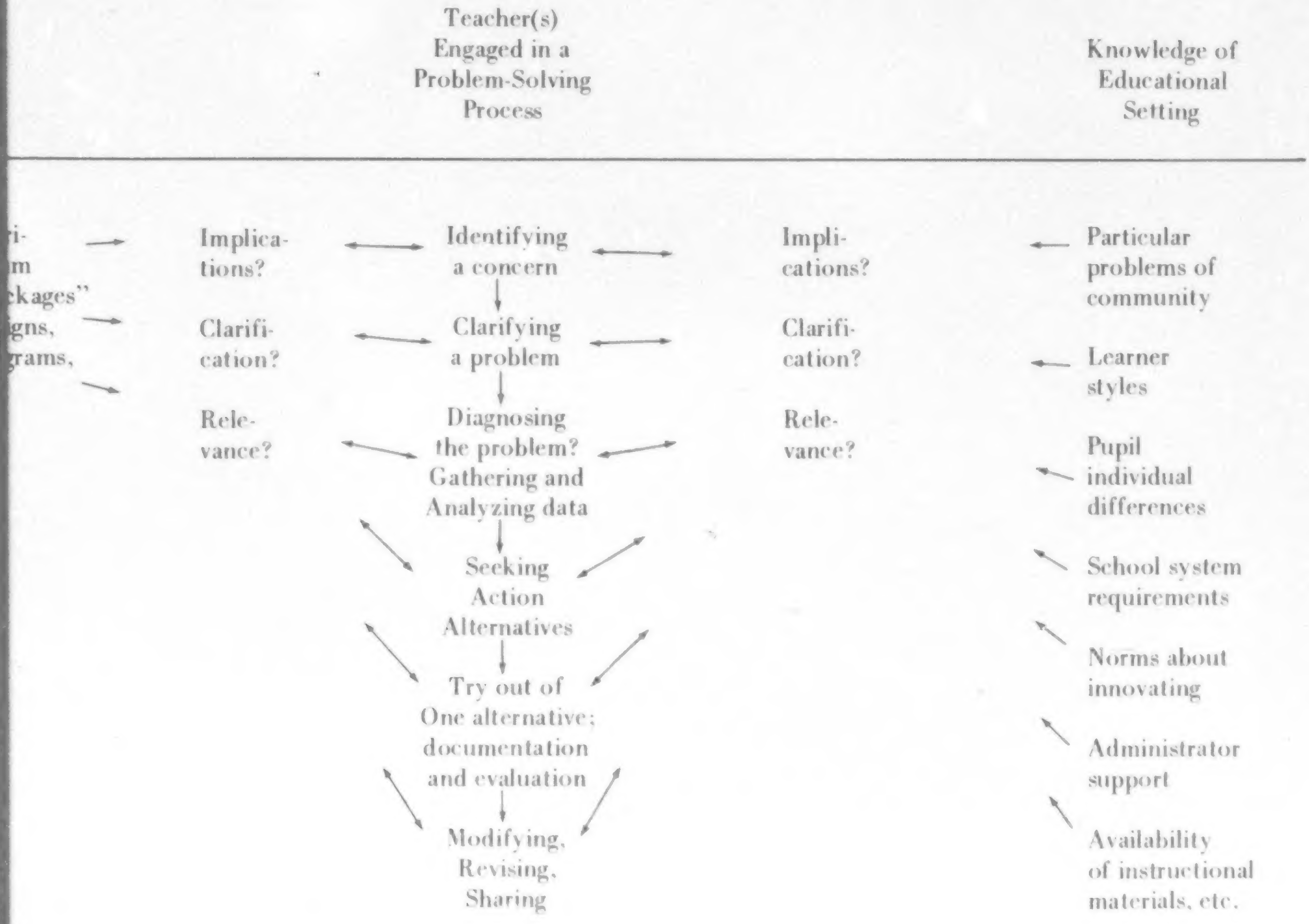

Scientific Knowledge
Teacher(s) Engaged in a Problem-Solving Process
Research findings
Theory
Methodology
Etc.
Curriculum "packages"
Designs, programs, etc.
Implications?
Clarification?
Relevance?
Identifying a concern
Clarifying a problem
Diagnosing the problem? Gathering and Analyzing data
Seeking Action Alternatives
Try out of One alternative; documentation and evaluation
Modifying, Revising, Sharing
Implications?
Clarification?
Relevance?

*Reprinted by permission of the publisher and authors from page 18 of *Inservice Teaching Education to Support Utilization of New Social Science Curricula* by Robert Fox, Ronald Lippitt, Emily Girault and Lucille Schaible. Publication No. 125 (1968), Social Science Ed Broadway, Boulder, Colorado 80302.

Figure 5

A Problem-Solving, Research Utilizing Model

of the Curriculum Change Process


Teacher(s)
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the problem?
Gathering and
Analyzing data
Seeking
Action
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Try out of
One alternative;
documentation
and evaluation
Modifying,
Revising,
Sharing
Impli-
cations?
Clarifi-
cation?
Rele-
vance?
Particular
problems of
community
Learner
styles
Pupil
individual
differences
School system
requirements
Norms about
innovating
Administrator
support
Availability
of instructional
materials, etc.

of the publisher and authors from page 18 of *o Support Utilization of New Social Science* ld Lippitt, Emily Girault and Lucille Schaible. Publication No. 125 (1968), Social Science Education Consortium, Inc., 855 Broadway, Boulder, Colorado 80302.

system will be affected by the innovation.

b. Remember that a few trial runs do not make a new program and that new materials do not necessarily bring desired changes in approach or style. Buying a new set of multi-media materials may result in little or no significant change unless further steps are taken to make them a functional part of existing programs.

c. Integrating the new into existing programs may be facilitated by giving teachers ample opportunities to acquaint themselves with unfamiliar materials and equipment and by providing examples of various ways in which they might be used. Equitable scheduling of projectors and easy access to these and other necessary pieces of equipment may help encourage experimentation by insuring that they are available to all faculty members who want to try them.

d. A "promotional campaign" may be necessary before the new materials become part of the working system. Developing or adapting a set of guidelines for use by the department could be a good way to get staff members involved and help insure the success of future efforts to introduce change.[4]

C. Problems

1. The model trap

The use of any model to bring about change runs the danger of being overzealously applied. Each teacher entering into the curriculum-change process is a unique individual with unique experiences, perceptions and values. Each school district entering a curriculum-revision program is equally unique in the types of need and concern it has. The problem-solving model used in *Perspectives* should be a tool-suggesting processes, questions and problems rather than a straitjacket which requires ritualistic adherence. Curriculum groups should take a flexible approach to revision and modify the processes whenever necessary.

2. Innovation as process not p
The use of trials teaching
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Step 4: Assigning Roles (See figure 2

A. Processes (Organizing the Proble
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B. Analytical Questions

1. What are the characteristics
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2. Innovation as process not product

The use of trials teaching as part of the problem-solving approach to innovation requires patience and persistence. It allows the teacher to assess curriculum material in terms of its quality, value and applicability to the classroom. It is important, therefore, that the materials used in the trials are distinguishable in terms of curriculum design, content and teaching procedures. It is also important that the teacher be aware of those distinctions and be provided a hospitable environment in which to test them out. Trials-teaching must also be viewed as a way of changing the skills, attitudes and teaching norms of the teacher himself. In this respect, trials-teaching is a process of teacher self-renewal in which old ideas and values give way to new ones.

Step 4: Assigning Roles (See figure 2 , p. 193 .)

A. Processes (Organizing the Problem)

By the completion of Step 3, the original curriculum committee will have finished the entering strategies of assessing needs, narrowing the focus, and formalizing the curriculum-change process. With the advent of Step 4, the teachers will begin the starting strategies of assigning roles, implementing curriculum, and developing provisional courses of study. To accomplish this, the large committee should appoint a smaller action group. This new committee, at a minimum, should contain a teacher from each of the grades and/or subjects affected by the revision. At maximum the committee should be limited in size to a manageable task-oriented group of teachers and administrators.

B. Analytical Questions

1. What are the characteristics of the change agent?

Change takes place through an agent of some kind whether that agent be an organization, a committee or an individual. To successfully implement change it is just as important to understand the characteristics of the change agent as it is to understand the process by which change takes place.

The quotation which follows is the summary and conclusion of an article by Norman E. Hearn, coordinator of educational communications and change strategies, U.S. Office of Education. Hearn's portrait of an innovator is as challenging as it is descriptive. He concludes:

> The successful innovator is one who can effectively manipulate the variables and strategies along the continuum of problems related to where, when, and how to cause change for the improvement of education. He is a person who approaches the task of changing people, including himself, as a teacher ideally would. His orientation to people is that they are students to be taught, not enemies to be overcome. He basically believes that most people like to do new things, even though they don't show it; that they will change if they understand the benefits to them and society and if they know how they are to change. The mature innovator knows that change may take more time than anticipated and that resistance to new ideas can be expected. He approaches his community as a social scientist might, viewing it as a social organism that is dynamic and reactive and ever capable of adaptations if the approaches are right. Most of the research now points to the wisdom of adopting a change model that emphasizes planned change, systems analysis, problem solving, and human interaction through extensive involvement of all possible persons affected by the change. Such a model takes cognizance of the variables interacting with various change strategies and helps develop educational systems that are self-renewing and humanizing.[5]

2. What sustains a climate of change?

The thrust of Parts I and II of *Perspectives* was to provide teachers with the methodological and analytical perspectives necessary to carry out curriculum revision. The use of new social studies materials and the experience-analysis-application format has reversed the tendency of many inservice programs to tell teachers what they should know; but rather to get

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work could be expanded
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C. Problems

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the teachers involved in the processes of thought. The training models used in *Perspectives* could easily accommodate new themes or new areas of concern. Experimenting teachers should initiate their own inservice program based on the problems they encounter throughout the limited school trials. This will provide an opportunity to share information and concerns as a way sustaining the climate of change. At later stages of the revision program the inservice work could be expanded to include all teachers in the district.

3. What roles should be assigned?

The change strategy of the program is based on developing a community of like-minded teachers who will initiate curriculum change and then serve as models and guides to teachers who are later brought into the program. Role assignments should be made after teachers become familiar with the curriculum materials they are going to use. The materials should be compatible with the goals outlined at the outset of the program and be implemented with the full knowledge of everyone affected by the ramifications of the change. Finally, the teacher-role assignments should consider the unique nature of the students, the subject matter, the physical facilities of the school, and the time restrictions involved with the change program.

C. Problems

1. Teachers and educational change

There is always a danger that a small group of innovators like the trials-teachers could lose touch with the larger change process of which they are a part. If communication lines break down and the group operates in isolation, there is little chance that innovation will succeed. Sharing trial results with relevant others is one way to maintain contact. Other ways might be to divide some of the responsibility for the trials with teachers not in initial experimental groups. Establishing additional trial runs or limited experiments with various types of materials would go a long way to minimize future feelings of inadequacy, insecurity and hostility.

2. Students and educational change

Many times students are just as reluctant to change as their teachers. Students should be an integral part of the change process. They should be aware of the purpose behind the change and understand the objectives of the new programs they are experiencing. Patience and persistance are also required of the student undergoing change, for often the benefits of an innovation may not be immediately apparent.

Step 5: Trial of Selected Materials (See figure 2 , p. 194 .)

A. Processes (Gathering and Analyzing Data)

This step of the model deals with a controlled implementation of selected curriculum material. Because "packaged" material has already been researched, designed and evaluated by the project developers, the function of the teacher is to determine its "fit" within the context of the local community. Evaluation necessary to determine that "fit", will concentrate less on student achievement and more on the curriculum materials themselves.

B. Analytical Questions

1. How can teachers evaluate the innovation?

Once the trials begin, it is important that evaluation take place and that the evaluation results are collected and compiled by the curriculum committee. The questionnaire that follows is one suggested way information can be gathered. This instrument is to be filled out after completing a discernible segment of course content. The activities evaluated can be chosen on a sample basis but they should represent the characteristics of the broader unit, chapter, section or course being evaluated.

2. How can students evaluate the innovation?

If a systematic effort is made to tap student responses to the program, it would be wise to modify student questionnaires for use on the computer. This will reduce the work involved in tabulating great numbers of answer sheets and provide useful printout summaries of the results. The student questionnaire which follows is designed for use with a computer.

Teacher Activity Questi

Name of Project ____________ Name o

Teacher __________ School ________

Periods spent on the activity ________

After each Roman numeral fill in the scal
importance of each item. One is the
highest. Then in the numbered sub-s
numeral answer the subset questions
appropriate yes or no column. If the que
or does not apply leave it blank.

Example

A. The clarity of curriculum intent

Yes No

✓ ___ 1. The activity objecti

✓ ___ 2. The teaching proce

- - - - - - - - - - - - - - - - -

I. The motivational level of the activi

Yes No

___ ___ 1. The materials were

___ ___ 2. The teaching metho

___ ___ 3. The activity involve

(Continued)

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nd educational change
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of the new programs they are experiencing.
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e its "fit" within the context of the local
valuation necessary to determine that "fit",
e less on student achievement and more on
materials themselves.
stions
eachers evaluate the innovation?
trials begin, it is important that evaluation
e and that the evaluation results are col-
d compiled by the curriculum committee.
ionnaire that follows is one suggested way
on can be gathered. This instrument is to be
after completing a discernible segment of
ntent. The activities evaluated can be chosen
ple basis but they should represent the
stics of the broader unit, chapter, section or
ng evaluated.

tudents evaluate the innovation?
natic effort is made to tap student responses
ogram, it would be wise to modify student
aires for use on the computer. This will
e work involved in tabulating great numbers
er sheets and provide useful printout
s of the results. The student questionnaire
lows is designed for use with a computer.

Teacher Activity Questionnaire

Name of Project ______________ Name of Activity ______________

Teacher ____________ School ____________ Date ______________

Periods spent on the activity ______________________________

After each Roman numeral fill in the scale describing the general importance of each item. One is the lowest and four is the highest. Then in the numbered sub-sections of each roman numeral answer the subset questions with a check in the appropriate yes or no column. If the question is not appropriate or does not apply leave it blank.

Example

A. The clarity of curriculum intent was:
(low = = = ▬ high)
1 2 3 4

Yes No

✓ ___ 1. The activity objectives were explicit.

✓ ___ 2. The teaching procedures were explicit.

- -

I. The motivational level of the activity was:
(low = = = = high)
1 2 3 4

Yes No

___ ___ 1. The materials were appealing.

___ ___ 2. The teaching methods were varied.

___ ___ 3. The activity involved the students.

(Continued)

___ ___ 4. The course content was challenging for the better student.

___ ___ 5. The course content was challenging for the poorer student.

___ ___ 6. The course content reflected "real" social issues. (a reality-based activity).

II. The level of student thought was: (low = = = = high)
1 2 3 4

Yes No

___ ___ 1. The materials provided for student creativity.

___ ___ 2. The materials provided for student choice.

___ ___ 3. The materials promoted critical thinking skills.

___ ___ 4. The materials promoted thoughtful discussion.

___ ___ 5. The materials were sequential and developmental.

___ ___ 6. The materials were conceptually, as well as factually based.

___ ___ 7. The questions in the activity raised the level of student thought.

___ ___ 8. The materials addressed value issues.

___ ___ 9. The time spent equalled the importance of the activity.

III. The ease of implementat on was: (

Yes No

___ ___ 1. The activity's objec

___ ___ 2. Teacher backg provided.

___ ___ 3. The teaching proce

___ ___ 4. The teaching meth the course objectiv

___ ___ 5. The reading level was appropriate students.

___ ___ 6. The student directi

___ ___ 7. Evaluation instrum

___ ___ 8. The A.V. materials

___ ___ 9. The materials ca pre-class experience

___ ___ 10. The materials prov students to apply t

IV. The amount of student interest wa

V. The amount of student learning

(Continued)

course content was challenging for the
er student.

course content was challenging for the
rer student.

course content reflected "real" social
es. (a reality-based activity).

thought was: (low = = = = high)
1 2 3 4

materials provided for student
tivity.

materials provided for student choice.

materials promoted critical thinking
s.

materials promoted thoughtful
ussion.

materials were sequential and
elopmental.

materials were conceptually, as well as
ually based.

questions in the activity raised the
l of student thought.

materials addressed value issues.

time spent equalled the importance of
activity.

III. The ease of implementation was: (low = = = = high)
1 2 3 4

Yes No

____ ____ 1. The activity's objectives were clear.

____ ____ 2. Teacher background materials were provided.

____ ____ 3. The teaching procedures were clear.

____ ____ 4. The teaching methods were consistent with the course objectives.

____ ____ 5. The reading level of the student material was appropriate for the majority of students.

____ ____ 6. The student directions were clear.

____ ____ 7. Evaluation instruments were helpful.

____ ____ 8. The A.V. materials were functional.

____ ____ 9. The materials capitalized on students' pre-class experiences.

____ ____ 10. The materials provided an opportunity for students to apply their new learning.

IV. The amount of student interest was: (low = = = = high)
1 2 3 4

V. The amount of student learning was:
(low = = = = high)
1 2 3 4

(Continued)

VI. List the major concepts and/or generalizations dealt with in the activity.

1.

2.

3.

4.

5.

VII. Comments (i.e., other strengths or weaknesses of the activity)

End of Teacher Activity Questionnaire

Be willing to modify th
g

Student Questionnaire (Uni

General Directions:

Line one of answer sheet.
Print name of project in the s
put today's date in space labe

Second line.
Print name of your school in
print the grade you are in
GRADE OR CLASS, and p
teacher in the space labeled I

Third line.
Print the name of this activity
space labeled NAME OF TES

Now read the directions for markin
answer sheet; note the sample exercise
question numbers are printed on you
items 1-4 are on a line, not in a column.

Specific Directions:

In this questionnaire, you are a
feelings about the activity or uni
You will not be graded on this. Y
help improve social studies in the s

For items 1-6, select the one res
the right) that expresses your feel
Then blacken the corresponding
on your answer sheet.

(Continued)

concepts and/or generalizations dealt with

, other strengths or weaknesses of the

eacher Activity Questionnaire

Be willing to modify the instrument if it doesn't generate the data you want.

Student Questionnaire (Unit or Activity)

General Directions:

Line one of answer sheet.
Print name of project in the space labeled NAME, and put today's date in space labeled DATE.

Second line.
Print name of your school in space labeled SCHOOL, print the grade you are in, in the space labeled GRADE OR CLASS, and print the name of your teacher in the space labeled INSTRUCTOR.

Third line.
Print the name of this activity, being evaluated, in the space labeled NAME OF TEST.

Now read the directions for marking the questions on this answer sheet; note the sample exercise. Also note the way the question numbers are printed on your answer sheet, that is, items 1-4 are on a line, not in a column.

Specific Directions:

In this questionnaire, you are asked to give your own feelings about the activity or unit you have just finished. You will not be graded on this. Your honest opinion will help improve social studies in the school.

For items 1-6, select the one response (from the box on the right) that expresses your feeling regarding each item. Then blacken the corresponding rectangle, for that item, on your answer sheet.

(Continued)

What did you think of the activity (unit) in terms of its **interest** to you?

1. The unit or activity as a whole
2. The reading in the unit
3. The way the activity was taught
4. The tapes, films and slides
5. The simulation game
6. The group activity

1. Uninteresting
2. Interesting
3. Very Interesting
4. I do not remember
5. Does not apply

For items 7-12, select the response (from the box on the right) that expresses your feeling regarding each item. Then blacken the corresponding rectangle, for that item, on your answer sheet.

How much do you feel you **learned** from the following?

7. The activity (unit) as a whole?
8. The readings in the unit?
9. The way the activity was taught?
10. The tapes, films and slides?
11. The simulation game?
12. The group activities?

1. Nothing
2. Little
3. A great deal
4. I do not remember
5. Does not apply

13. How often did you feel you supposed to learn from this ac

1] Never 2] Seldom 3] Gener

14. How does this activity comp project, you have studied?

    1. It was the hardest activity
    2. It was one of the harder
    3. It was about average in di
    4. It was one of the easier ac
    5. It was the easiest I've had

15. How many hours a week out-of-class preparation for thi

    1. None
    2. One-two hours
    3. Two-four hours
    4. More than four hours
    5. No homework required

16. Would you recommend this so your best friend?

    1. Yes
    2. No

When finished, follow instructions, fr returning the materials.

hink of the activity (unit) in terms of its

activity

in the unit

e activity

films and

tion game

ctivity

1. Uninteresting
2. Interesting
3. Very Interesting
4. I do not remember
5. Does not apply

select the response (from the box on the resses your feeling regarding each item. e corresponding rectangle, for that item, heet.

u feel you **learned** from the following?

(unit)

s in the

e activity

?

films and

tion game?

ctivities?

1. Nothing
2. Little
3. A great deal
4. I do not remember
5. Does not apply

13. How often did you feel you knew what you were supposed to learn from this activity?

1] Never 2] Seldom 3] Generally 4] Always

14. How does this activity compare with others, in this project, you have studied?

    1. It was the hardest activity
    2. It was one of the harder ones
    3. It was about average in difficulty
    4. It was one of the easier activities
    5. It was the easiest I've had

15. How many hours a week did you spend on out-of-class preparation for this activity?

    1. None
    2. One-two hours
    3. Two-four hours
    4. More than four hours
    5. No homework required

16. Would you recommend this social studies program to your best friend?

    1. Yes
    2. No

When finished, follow instructions, from your teacher, for returning the materials.

C. Problems

1. Formalizing the evaluation process.

As the limited trials unfold there should be a division of labor among participants on the curriculum revision committee. One group of teachers should be concerned with the evaluation feedback growing out of the trials. Minimal bookkeeping chores for the evaluation subcommittee might include keeping records of projects and units taught, of the numbers of students and classes involved, and of the results of any evaluation carried out during the trials. This internal communication can be carried out informally as part of the ongoing inservice program, but some degree of coordination is necessary to insure that important data is collected and recorded.

2. Formalizing the communication network.

A second group of teachers should be selected to serve as a curriculum framework committee. This committee should review the progress of the trials as they relate to the rationale and goals established at the outset of the program. This group should also be exploring alternative curriculum design that would be compatible with the intent of the revision committee and the type of materials being tried in the various classrooms. Throughout the trials period, external communication should continue so that as many non-participants as possible can be informed and kept abreast of the program. A lack of involvement increases the chance of misunderstanding and decreases the chance of later acceptance. The channels of communication should be formalized with provision for released time, inter-school visitations and district-wide curriculum days.

Step 6: Developing Provisional Courses (See figure 2 , p. 194 .)

A. Processes (Seeking Action Alternatives)

This step of the model will concentrate on developing provisional courses of study for various grade levels based on what was learned from the materials trials. The major focus will be on formalizing and disseminating the better course materials for more extensive review and revision. The provisional courses that emerge at this point in time

should satisfy most of the short r
program.

B. Analytical Questions

1. How can the curriculum be f
The limited materials trials
year, meeting the specific du
in conjunction with the s
program. In the final sem
experimenting teachers
experimental materials int
study. Although the classro
the course development sho
teachers grouped according
grade level designations.
should then be presented t
the curriculum evaluation an
committees.

2. How can the new curriculum
If the communication throu
successful the disseminatio
successful. In the final
component of any curricul
spirit of inquiry is mainta
embody a built-in ch
experimentation and revisio
should be introduced to
non-participating members
pre-teaching workshops at
leadership for these worksho
the original experimenting
same problems of implemen
during the first year of the
are still provisional in natur
begun during the initial
throughout the disseminatio
second year of the curriculu

C. Problems

1. Program development strateg
There is a danger in creating
the mindless routine of exi
by equally mindless novel

he evaluation process.
d trials unfold there should be a division
nong participants on the curriculum
mittee. One group of teachers should be
ith the evaluation feedback growing out
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nd classes involved, and of the results of
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the program. This group should also be
rnative curriculum design that would be
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of materials being tried in the various
Throughout the trials period, external
on should continue so that as many
nts as possible can be informed and kept
he program. A lack of involvement
e chance of misunderstanding and
e chance of later acceptance. The
communication should be formalized
on for released time, inter-school
d district-wide curriculum days.

onal Courses (See figure 2 , p. 194 .)
Action Alternatives)
model will concentrate on developing
of study for various grade levels based
ned from the materials trials. The major
formalizing and disseminating the better
for more extensive review and revision.
ourses that emerge at this point in time
should satisfy most of the short range goals of the revision program.

B. Analytical Questions

1. How can the curriculum be formalized?

The limited materials trials should continue for a year, meeting the specific due dates established earlier in conjunction with the short-range goals of the program. In the final semester of the trials, the experimenting teachers should weave their experimental materials into complete courses of study. Although the classroom trials are individual, the course development should be a joint effort by teachers grouped according to subject matter and grade level designations. The completed courses should then be presented to and passed on by both the curriculum evaluation and curriculum framework committees.

2. How can the new curriculum be disseminated?

If the communication throughout the year has been successful the dissemination efforts will also be successful. In the final analysis the dynamic component of any curriculum is the teacher. If the spirit of inquiry is maintained, the program will embody a built-in challenge for continued experimentation and revision. The provisional courses should be introduced to the staff by providing non-participating members with one- or two-week pre-teaching workshops at the building level. The leadership for these workshops should be assumed by the original experimenting teachers, focusing on the same problems of implementation they experienced during the first year of the trials. Courses, however, are still provisional in nature so the scientific posture begun during the initial trials should continue throughout the dissemination workshop and into the second year of the curriculum revision program.

C. Problems

1. Program development strategies

There is a danger in creating provisional courses that the mindless routine of existing courses be replaced by equally mindless novelty of new courses. The invigorating effects of innovation soon wear off and teachers and students must live with a new course on its merits. Worthwhile courses require a careful blending of new curriculum with the better traditional approaches that already exist.

2. Program Dissemination Strategies

Another danger in developing provisional courses comes with the dissemination of these courses. Materials that work for the trials teachers who developed them may not necessarily work for teachers not involved in the course development. In a similar manner, dissemination within a limited setting such as a department or school may be different than dissemination on a school-wide basis. In addition to the change strategy suggested in steps VI-X of *Perspectives* it might be well to consult additional sources such as IDEA (Institute for Development of Educational Activities, Inc., Box 446, Melbourne, Florida 32901) or the NASSP Model Schools Projects, 1201 16th Street, N.W., Washington, D. C. 20036.

Step 7: District-Wide Dissemination (See figure 2 , p. 194 .)

A. Processes (Testing Alternatives)

Step 7 will deal with the long-range goals of the program and the maintaining strategies of district-wide dissemination, scope and sequence, and the formalization of the program. Step 7 of the model will repeat the questions: How do teachers evaluate the program? How do students evaluate the program? And pose the additional question of how the innovation relates to the rationale and goals of the program.

In answer to these questions the teachers will repeat the cycle used earlier in teaching and modifying the materials, only this time it will be done as part of a district-wide revision program. A fairly well-developed conceptual framework should accompany these courses along with a set of fairly standardized evaluation instruments and hard data on their success or failure in the classroom. The teachers who worked with the earlier versions of the materials will be in a position in the later trials to aid their colleagues in the implementation and evaluation of the

provisional courses.

B. Analytical Question

How does the innovation reflec
objectives of the program?

During the second year of the
committee has the dual task o
program in accordance with
goals, while at the same time ma
has already been made. Inservi
success of the district-wide trial
the form of implementation
analysis sessions, teaching-skills
institutes, and the use of cons
school system. The same teache
should be continued through t
trials. The same evaluation an
committees should oversee the
their focus should be on long-ra
goals of the program. The Ann
the following concerns of teach
be satisfied if problem-solving ef
Teachers start with such questio

- What *concerns* do I ha
as a teacher?
- How *relevant* are the
providing to my studen
- Is our curriculum in lin
- How can I find time to
doing?
- Who cares about my
teaching?
- How can I set prioritie
opportunities for impr
my classroom?
- What are the norms ar
innovation and change
- Where can I get help i
demands skill on my p
- How can I tell if it's w

If a conscientious effort is
questions, the maintaining strate

g effects of innovation soon wear off and
nd students must live with a new course on
. Worthwhile courses require a careful
of new curriculum with the better
approaches that already exist.
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that work for the trials teachers who
them may not necessarily work for
ot involved in the course development. In a
nner, dissemination within a limited setting
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ng Alternatives)
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scope and sequence, and the formalization
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the innovation relates to the rationale and
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it will be done as part of a district-wide
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uld accompany these courses along with a
ndardized evaluation instruments and hard
success or failure in the classroom. The
worked with the earlier versions of the
e in a position in the later trials to aid their
he implementation and evaluation of the

provisional courses.

B. Analytical Question

How does the innovation reflect the initial rationale and objectives of the program?

During the second year of the program the curriculum committee has the dual task of expanding the revision program in accordance with the program's long-range goals, while at the same time maintaining the progress that has already been made. Inservice training is vital to the success of the district-wide trials. This training may take the form of implementation workshops, interaction analysis sessions, teaching-skills demonstrations, ongoing institutes, and the use of consultants from outside the school system. The same teacher and student evaluation should be continued through the expanded school-wide trials. The same evaluation and curriculum framework committees should oversee the new trials, but this time their focus should be on long-range as well as short-range goals of the program. The Ann Arbor Conference isolated the following concerns of teachers, concerns that should be satisfied if problem-solving efforts are to reach fruition. Teachers start with such questions as:

- What *concerns* do I have about my effectiveness as a teacher?
- How *relevant* are the learning experiences I am providing to my students?
- Is our curriculum in line with *modern trends*?
- How can I find time to do all I know I should be doing?
- Who cares about my efforts to improve my teaching?
- How can I set priorities among all the competing opportunities for improving learning activities in my classroom?
- What are the norms around our school regarding innovation and change?
- Where can I get help if I try something new that demands skill on my part?
- How can I tell if it's worth the effort?[6]

If a conscientious effort is made to address these questions, the maintaining strategies of the revision model will be in full swing, and the revision committee will be accomplishing its designated tasks.

C. Problem

The responsibility for change.

If teachers are to persist as change agents in the school they should secure the authority necessary to function in this role. A written school district policy should exist for such innovative practices as team teaching, flexible scheduling and released time. The policy should be broadened to include such things as experimental courses, controversial issues and staff responsibility for recruitment and retention. Many of the recent "Standards for Social Studies Teachers" developed by the National Council for the Social Studies (*Social Education*, December 1971) can and should become written school policy.

Step 8: Scope and Sequence (See figure 2 , p. 194 .)

A. Processes (Modifying)

By the second semester of the second year, various ad hoc groups should be formed to finalize the district-wide social studies program. Groups representing each grade level should revise the provisional courses into permanent courses of study. This revision should be done, subject to review by the Committee of the Whole. Groups representing subject matter areas should articulate the treatment of their disciplines across grade level lines, where all the teachers of history, for example, will meet together and coordinate history within the curriculum. Separate groups representing elementary, junior high, and senior high should analyze and articulate the total elementary, junior high, and senior high social studies curriculum within their own grade-level areas. The groups will finally come together and hammer out an articulated K-12 social studies program that should meet the needs spelled out at the beginning of the curriculum revision program.

B. Analytical Question

What alternatives are available?

At the elementary and secondary level there are several alternative approaches to scope and sequence in social studies curriculum. Lawrence Senesh is his *Our Working World* (Science Research Associates, 1965) developed what he calls the orchestrated curriculum. In each grade,

different disciplines are called upo
analytical role. One year, for exam
the role with the other disciplines
This orchestration continues u
grounded in the concepts and pr
science disciplines.

Hilda Taba in her *Teacher's Han*
Social Studies (Addison-Wesley
developed what she calls the Sp
organization, key concepts like i
causality, and interdependence ar
the curriculum at various levels
lower grades will approach the
concrete terms. Succeeding grades
in greater generality, complexity
Department of Education for th
(Edmonton, Alberta, 1971) has u
restructure its entire K-12 social st
Edith West in her background pap
Disciplines," (Social Studies Curric
of Minnesota, Minneapolis) has
framework that systematically
concepts through the study of
settings. Another comprehensive
developed by the State Curricul
"Social Science Educational Fra
Public Schools" (Sacramento, 196
California schools treats modes of
from the social sciences, and a
problems. All of the alternatives
others that have merit should
definitive curriculum structure is d

C. Problems

1. Breaking with the past.

To date the elementary curri
expanding horizons approach
In a similar manner the s
divided along subject matter
growing dissatisfaction with
yet they prevail despite
against them. In his recent b

ing, and the revision committee will be
designated tasks.

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persist as change agents in the school
e the authority necessary to function in
n school district policy should exist for
practices as team teaching, flexible
eleased time. The policy should be
ude such things as experimental courses,
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(*Social Education*, December 1971) can
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Groups representing each grade level
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disciplines across grade level lines, where
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ng elementary, junior high, and senior
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are available?
y and secondary level there are several
aches to scope and sequence in social
n. Lawrence Senesh is his *Our Working*
esearch Associates, 1965) developed what
chestrated curriculum. In each grade,

different disciplines are called upon to play the dominant analytical role. One year, for example, the economist plays the role with the other disciplines playing supporting roles. This orchestration continues until students are well grounded in the concepts and processes of all the social science disciplines.

Hilda Taba in her *Teacher's Handbook for Elementary Social Studies* (Addison-Wesley Company, 1967) has developed what she calls the Spiral curriculum. In the organization, key concepts like interaction, environment causality, and interdependence are structured throughout the curriculum at various levels of understanding. The lower grades will approach the concepts in specific, concrete terms. Succeeding grades will treat the concepts in greater generality, complexity and abstractness. The Department of Education for the Province of Alberta (Edmonton, Alberta, 1971) has used the Taba model to restructure its entire K-12 social studies program.

Edith West in her background paper, "The Social Science Disciplines," (Social Studies Curriculum Center, University of Minnesota, Minneapolis) has developed a curriculum framework that systematically treats multi-disciplinary concepts through the study of a variety of cultural settings. Another comprehensive framework has been developed by the State Curriculum Commission in its "Social Science Educational Framework for California Public Schools" (Sacramento, 1968). The program for the California schools treats modes of social inquiry, concepts from the social sciences, and a variety of issues and problems. All of the alternatives suggested above plus others that have merit should be reviewed before any definitive curriculum structure is developed.

C. Problems

1. Breaking with the past.

To date the elementary curriculum has embodied the expanding horizons approach to scope and sequence. In a similar manner the secondary curriculum is divided along subject matter lines. There has been growing dissatisfaction with both these approaches, yet they prevail despite the mounting criticism against them. In his recent book, *New Strategies for*

Social Education (Science Research Associates, Inc., 1972) Joyce devotes several chapters to alternative curriculum organization. His organizational patterns compliment the orientation toward social education developed in *Perspectives*. The patterns break with tradition by suggesting four approaches to overall education: a social science-centered curriculum, a citizen-centered curriculum, a personal-centered curriculum and a curriculum that integrates the three dimensions. The time has come when curriculum can no longer be organized solely on patterns that are familiar, and on the mistaken belief that what was good yesterday must be good today and tomorrow.

Step 9: Formalizing the Curriculum (See figure 2 , p. 194 .)

A. Processes (Sharing)

In all likelihood the curriculum that emerges at the end of the revision process will be quite different than the curriculum that preceded it. The objectives should be more explicit, the content more varied, the instructional strategies more purposeful, and the evaluation more meaningful. A fairly good case can be made for formalizing into writing the courses developed as part of the revision program. Smith defends this process in the following way:

> Any concerted effort by a public school staff in revising its social studies curriculum should result in a written course of study. The format, style, and extent of detail in a course of study will differ widely from one school district to another, according to a staff's perception of its needs. However, in all instances, the curricular decisions reached in planning should appear in written form for these reasons:
>
> - A well-written course of study provides an alternative organizational plan which is potentially much more flexible than an adopted textbook. In the absence of a written course of study, it will be difficult for some teachers to extend their teaching beyond the confines of a single adopted textbook.
> - A written course of study is one step toward assuring an equal opportunity for learning for all elementary and secondary students at a given

> grade level. In a mann
> floor under the instru
> studies. Some enterp
> beyond the suggestion
> of study, but the basic
> use.
>
> - A written course of s
> indication of the
> resources available fo
> studies. It is unlikely
> the system will conduc
> find what is available.
> described for teachers
> will not be used.
> - A well-documented wr
> indicate supplementar
> use in teaching social
> easier to review a
> systematically.
> - A writt n course of s
> changing the instructio
> circumstances change,
> are to keep their
> up-to-date.[7]

In all likelihood the courses of st
formalization process will be co
the typical social studies syllabu
be maintained in order to preven
of the new document.

B. Analytical Question

Can change be built into curricul
Any curriculum will stagnate un
of the rapidly changing envir
modifications in instruction base
to suggest that watchdog com
periodically review the curricul
revision process. This is probab
human nature and the tendenc
wide-scale innovation with
consolidation and consensus.
revision takes place it will probab

cation (Science Research Associates, Inc.,
ce devotes several chapters to alternative
organization. His organizational patterns
t the orientation toward social education
in *Perspectives*. The patterns break with
y suggesting four approaches to overall
a social science-centered curriculum, a
tered curriculum, a personal-centered
and a curriculum that integrates the three
. The time has come when curriculum can
be organized solely on patterns that are
nd on the mistaken belief that what was
rday must be good today and tomorrow.

Curriculum (See figure 2 , p. 194 .)
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preceded it. The objectives should be more
content more varied, the instructional
purposeful, and the evaluation more
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defends this process in the following way:
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social studies curriculum should result in a
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district to another, according to a staff's
of its needs. However, in all instances, the
decisions reached in planning should appear
form for these reasons:

ll-written course of study provides an
native organizational plan which is
tially much more flexible than an adopted
ook. In the absence of a written course of
, it will be difficult for some teachers to
d their teaching beyond the confines of a
adopted textbook.

itten course of study is one step toward
ng an equal opportunity for learning for all
ntary and secondary students at a given

grade level. In a manner of speaking, it puts a floor under the instructional program in social studies. Some enterprising teachers may go beyond the suggestions for teaching in a course of study, but the basic program is there for all to use.

- A written course of study may well include an indication of the first-hand community resources available for use in teaching social studies. It is unlikely that each teacher new to the system will conduct a survey on his own to find what is available. Unless these are listed and described for teachers, it is probable that they will not be used.
- A well-documented written course of study will indicate supplementary materials available for use in teaching social studies, thus making it far easier to review and add such materials systematically.
- A written course of study provides a basis for changing the instructional program as times and circumstances change, a vital element if schools are to keep their instructional programs up-to-date.[7]

In all likelihood the courses of study that emerge from this formalization process will be considerably different than the typical social studies syllabus. This difference should be maintained in order to prevent rigidification and misuse of the new document.

B. Analytical Question

Can change be built into curriculum?

Any curriculum will stagnate unless teachers remain aware of the rapidly changing environment and make daily modifications in instruction based on it. It would be easy to suggest that watchdog committees be assigned to periodically review the curriculum as part of an ongoing revision process. This is probably unrealistic considering human nature and the tendency to follow a period of wide-scale innovation with protracted periods of consolidation and consensus. If ongoing curriculum revision takes place it will probably involve small groups of teachers working for specific improvements in their day-to-day teaching.

As valuable as the products of the curriculum reform movement are, a more lasting contribution of the new social studies are the processes they used in developing, designing and evaluating curriculum materials. These same processes can be used by teachers to enliven, to enrich and to update their own curriculum. These processes will free teachers from dependence on "packaged" curriculum and allow them to revise and even to design their own educational programs.

C. Problem

Sharing innovation efforts.

"The Resource Perspectives" in Part IV of this document suggests several national clearinghouses for innovative practices in the social studies. Awareness of innovative practices is a necessary first step in maintaining a viable curriculum. This first step, however, must be followed by adaptations at the local level. An example of how this is possible can be drawn from the Anthropology Case Materials Project of Indiana University. During the height of the curriculum reform movement in the middle and late 60's, the authors of the Anthropology Case Materials Project were developing the Anthropology Curriculum Study Project as a joint effort of the American Anthropological Association and the National Science Foundation. When the original project was completed and it was obvious that massive funding for such efforts was over, projects like ASCP turned toward the development of teacher-training material. The approach used by the Anthropology Case Materials Project is to gather an in-depth series of readings and/or case studies on topics of current interest like technology, automation, and alienation. Teachers are asked to form into seminar groups and to plan experimental lessons based on the material. In the course of planning, the teachers devise rationale, objectives, teaching strategies, and instructional sequences to teach the lessons. In effect, the teachers are developing their own curriculum and doing it in an academically rigorous and intellectually stimulating way. This same process could be carried out over coffee, in teacher

lounges, or as a part of regul
activities. Once the lessons are
applied in the classroom and eva
effectiveness. If the lessons are
added to the syllabus as adden
reviewed through a process wh
effective materials and replaces i
more effective. In this way the so
become a dynamic and flexible to
of teacher behavior that nurture
good social studies curriculum in t

Step 10: Monitoring the Curriculum (See fi

A. Process (Revising)

Educators should maintain a futu
cope with the acceleration of ch
1900 man's knowledge doubled.
it doubled again. In the ten years
knowledge doubled again. Curr
simply react to change but must
we know it, is to survive.

B. Analytical Question

What changes can be anticipated?
The trends which follow have
monograph by Lippitt in which
of the future" that should be co
curriculum.

- Separation and polarization o
- Less tolerance for conformity
- Changing concepts of work a
- Changing occupational patter
- Growing concern about the q
- Growing need for continual r
- More integration of knowledg
- More voluntarism in all aspec
- Changing concepts of the fam

C. Problem

Anxiety over change

The anxiety created by change
growing desire among people to
hold more tenaciously than ev
practices of the past. To minimize

for specific improvements in their
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more lasting contribution of the new
the processes they used in developing,
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strategies, and instructional sequences
s. In effect, the teachers are developing
lum and doing it in an academically
llectually stimulating way. This same
carried out over coffee, in teacher

lounges, or as a part of regularly scheduled planning activities. Once the lessons are written they could be applied in the classroom and evaluated in terms of their effectiveness. If the lessons are worthy, they could be added to the syllabus as addendum to be periodically reviewed through a process which eliminates the less effective materials and replaces it with curriculum that is more effective. In this way the social studies syllabus can become a dynamic and flexible tool supportive of the type of teacher behavior that nurtures, sustains, and extends good social studies curriculum in the schools.

Step 10: Monitoring the Curriculum (See figure 2 , p. 195 .)

A. Process (Revising)

Educators should maintain a futuristic posture in order to cope with the acceleration of change. Between 1700 and 1900 man's knowledge doubled. Between 1900 and 1950 it doubled again. In the ten years between 1950 and 1960 knowledge doubled again. Curriculum can no longer simply react to change but must anticipate it if society, as we know it, is to survive.

B. Analytical Question

What changes can be anticipated?

The trends which follow have been abstracted from a monograph by Lippitt in which he describes the "images of the future" that should be considered in planning for curriculum.

- Separation and polarization of the community
- Less tolerance for conformity
- Changing concepts of work and money
- Changing occupational patterns
- Growing concern about the quality of life
- Growing need for continual re-education
- More integration of knowledge
- More voluntarism in all aspects of education
- Changing concepts of the family.[8]

C. Problem

Anxiety over change

The anxiety created by change is often reflected in a growing desire among people to escape the present and hold more tenaciously than ever to the policies and practices of the past. To minimize the resistance educators should not shy away from change but deal with it in an open and positive manner. Critics are not adversaries to overcome; on the contrary, they often clarify issues and if satisfied can become opinion leaders. Many innovations fail, not because the idea is bad but because of the way it is presented. It is important for the change agent to maintain within himself the same scientific posture he requires of the people being changed.

Notes

1 James Becker, "Memorandum from the Director" [Mimeographed] Social Studies Diffusion Project, Indiana University, Bloomington, Indiana, 1971.

2 Lloyd L. Smith and Joan E. Schreiber, *Social Studies K-6: A Guide for Curriculum Revision* (Des Moines, Iowa, 1971), pp. 24-25.

3 Reprinted by permission of the publisher and authors from p. 26 of *Inservice Teacher Education to Support Utilization of New Social Science Curricula* by Robert Fox, Ronald Lippitt, Emily Girault, and Lucille Schaible. Publication No. 125 (1968), Social Science Education Consortium, Inc., 855 Broadway, Boulder, Colorado 80302.

4 James Becker, "Organizing for Change: The Individual in the System," *Social Education*, XXXVII (March 1973), pp. 194-195.

5 Norman E. Hearn, "The Where, When, and How of Trying Innovations," *Phi Delta Kappan*, LIII (February 1972), pp. 361, 374. Reprinted by permission of Phi Delta Kappa.

6 Reprinted by permission of the authors and publisher from pp. 12-13 of *Inservice Teacher Education to Support Utilization of New Social Science Curricula* by Robert Fox, Ronald Lippitt, Emily Girault, and Lucille Schaible. Publication No. 125 (1968) Social Science Education Consortium, Inc., 855 Broadway, Boulder, Colorado 80302.

7 Smith and Schreiber, p. 21.

8 Ronald Lippitt, *The Dimensions o*
Studies Curriculum, pp. 2-6. Publication
Science Education Consortium, Inc., Bould

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e manner. Critics are not adversaries to
contrary, they often clarify issues and if
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Notes

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Joan E. Schreiber, *Social Studies K-6: A*
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XXXVII (March 1973), pp. 194-195.

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Phi Delta Kappa.

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y Robert Fox, Ronald Lippitt, Emily
le. Publication No. 125 (1968) Social
tium, Inc., 855 Broadway, Boulder,

. 21.

8 Ronald Lippitt, *The Dimensions of Change: In Our Social Studies Curriculum*, pp. 2-6. Publication No. 134 (1971), Social Science Education Consortium, Inc., Boulder, Colorado 80302.

Part Four

Resource Perspectives

Chapter XI Resources

Each year an avalanche of new publications pours down on the Social Studies and is manifested in a variety of items including: pamphlets, leaflets, monographs, bulletins, paperbacks, units of study, hardback books, games and visuals. Wisely selected and implemented, these materials provide a highly valuable array of resources which enrich the social studies. Properly selected materials not only enliven and stimulate study in the social studies but may readily suggest the need to revise and renovate the entire social studies curriculum as to content, method, scope, and sequence.

Consideration in the selection of materials should include variety to meet the expanding and maturing interests of students. A balance of various points of view in the selection of material is the responsibility of librarians and social studies teachers alike. Literary quality and at least a minimum level of academic respectability should also be of primary consideration.

Simulation games, which are becoming increasingly popular at all levels of education, afford the opportunity for teachers to include an effective device for motivation. In addition, students may, through the use of simulation, integrate many of the political, social, economic, and historic variables acquired through the years to solve a problem which is relevant to their world today. Simulation as an educational tool provides an opportunity for the student to apply cognitive knowledge to an explicit situation through the use of the various skills of decision-making, communication, bargaining, and persuasion.

Materials included in Part IV have been selected from the newest social studies projects and inquiry materials available. The primary consideration was to provide materials which may be utilized in tandem with the objectives, planning, and methodology for a growing and vibrant social studies program (as outlined in the handbook). The resources listed on the following pages vary in quality and difficulty but are limited primarily to the hardback and paperback, materials and games that may be used profitably for social studies in grades seven through twelve. The listing is *not exhaustive* but *representative* of the materials presently available. Due to limitations of space, no attempt has been made to list and discuss the visuals, pamphlets, and other materials that undoubtedly would contribute to a relevant social studies program.

Criteria for selection of publications included in Part IV were:

1. The broad representation from all areas of the social sciences (as discussed in the handbook).

2. An adequate academic quality.
3. The maximum use of methodological perspectives as illustrated in the handbook.
4. Provision of resource materials for teacher use in curriculum revision.

This chapter of the handbook utilizes the following organization:

A. **General Depositories:** provides a listing of agencies which provide comprehensive informational systems on curriculum, methodology and materials of use to teachers, curriculum committees, and school districts.
B. **Paperback Sources**
C. **Magazine and Journal Sources:** a listing of a variety of journals and magazines for the profitable use of both students and teachers in the social studies.
D. **Social Studies Inquiry Materials**
E. **Simulation Games:** a listing of simulation games for possible use in junior-senior high social studies, including the addresses of publishers of such games.
F. **Professional Resources:** an in-depth annotation of teacher materials useful for further analysis of the methodological and curriculum perspectives as presented in the handbook.

A. General Depositories

Social Science Education Consortium, Inc. (SSEC) and the Educational Resources Information Center (ERIC) - Clearinghouses for Social Science Education (ChESS).

The SSEC and ERIC/ChESS are both located at 855 Broadway, Boulder, Colorado 80302.

B. Paperback Sources

Paperbound Books in Print,, R. R. Bowker Co., 62 West 45th St., New York 10036.

Anchor Books, Doubleday, 501 Franklin Ave., Garden City, New York 11531.

Anvil Books, Van Nostrand Co., 120 Ale
Jersey 08540.

Mentor Books, New American Librai
Americas, New York 10019.

Penguin Books, 7110 Ambassador Rd., B

Pocket Books, Affiliated Publishing, In
York 10020.

Signature Books, Grosset & Dunlap, 51
10010.

The Viking Press, 625 Madison Avenue, N

Vintage Books, Random House, Inc., 20
10020.

C. Magazines and Journal Source

American Anthropologist, American A
1703 New Hampshire Avenue, N.W

American Civil Liberties Union News
Union, 156 Fifth Avenue, New York

American Economic Review, America
Rendigs Fels, 1313 21st Avenue,
37212.

The American Federationist, American
16th St., N.W., Washington D. C. 20

American Historical Review, American H
Street, S.E., Washington, D.C. 2000

The American Journal of Economics a
Street, New York 10021.

The American Political Science Review,
Association, 1726 Massachusetts
D.C. 20009.

American Sociological Review, American
N. Street, N.W., Washington, D.C. 1

Americas, Pan American Union, General
of American States, Washington, D.

Atlantic Monthly, 8 Arlington St., Boston

Atlas, The World Press in Translation, The
Worley Publishing Co., Subscription
Colorado 80302.

Business Week, McGraw-Hill Publishi
Highstown, New Jersey 08520.

Consumer Reports, Consumers' Union,
York 10550.

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e of methodological perspectives as
dbook.
e materials for teacher use in curriculum

he handbook utilizes the following

ries: provides a listing of agencies
nprehensive informational systems on
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: a listing of simulation games for
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and curriculum perspectives as
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Consortium, Inc. (SSEC) and the
mation Center (ERIC) - Clearinghouses
(ChESS).

S are both located at 855 Broadway,

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R. R. Bowker Co., 62 West 45th St.,

501 Franklin Ave., Garden City, New

Anvil Books, Van Nostrand Co., 120 Alexander St., Princeton, New Jersey 08540.

Mentor Books, New American Library, 1301 Avenue of the Americas, New York 10019.

Penguin Books, 7110 Ambassador Rd., Baltimore, Maryland 21201.

Pocket Books, Affliliated Publishing, Inc., 630 5th Avenue, New York 10020.

Signature Books, Grosset & Dunlap, 51 Madison Ave., New York 10010.

The Viking Press, 625 Madison Avenue, New York 10022.

Vintage Books, Random House, Inc., 201 East 50th St., New York 10020.

C. Magazines and Journal Sources

American Anthropologist, American Anthropological Association, 1703 New Hampshire Avenue, N.W., Washington, D.C. 20009.

American Civil Liberties Union News, American Civil Liberties Union, 156 Fifth Avenue, New York 10010.

American Economic Review, American Economic Association, Rendigs Fels, 1313 21st Avenue, South, Nashville, Tennessee 37212.

The American Federationist, American Federation of Labor, 815 16th St., N.W., Washington D. C. 20006.

American Historical Review, American Historical Association, 400 A Street, S.E., Washington, D.C. 20003.

The American Journal of Economics and Sociology, 50 E. 69th Street, New York 10021.

The American Political Science Review, American Political Science Association, 1726 Massachusetts Avenue, N.W., Washington D.C. 20009.

American Sociological Review, American Sociological Society, 1722 N. Street, N.W., Washington, D.C. 10036.

Americas, Pan American Union, General Secretariat of Organization of American States, Washington, D. C. 20006.

Atlantic Monthly, 8 Arlington St., Boston, Massachusetts 02116.

Atlas, The World Press in Translation, The Best from the World Press, Worley Publishing Co., Subscription Dept., Box 2550, Boulder, Colorado 80302.

Business Week, McGraw-Hill Publishing Co., P.O. Box 430, Highstown, New Jersey 08520.

Consumer Reports, Consumers' Union, Inc., Mount Vernon, New York 10550.

Current History, Current History, Inc., 1822 Ludlow St., Philadelphia, Pennsylvania 19103.

The Economist, Published weekly in London, England. The Economist Building, 25 St. James's Street, London, S.W., England.

Focus, American Geographical Society, Broadway at 156th St., New York 10032.

Foreign Policy Bulletin, Foreign Policy Association, P.O. Box 379, Old Chelsea Station, New York 10011.

Fortune, 541 N. Fairbanks Court, Chicago, Illinois 60611.

Georgraphical Review, American Geographical Society, Broadway at 15th St., New York 10032.

Harper's, 2 Park Avenue, New York 10016.

Human Relations, Tavistock Institute and the Research Center for Group Dynamics, Plenum Press, 227 W. 17th St., New York 10011.

Journal of American History, Thomas D. Clark, Executive Secretary, Organization of American Historians, 112 N. Bryan St., Bloomington, Indiana 47401.

Journal of Economic History, 100 Trinity Place, New York 10006.

Journal of Geography, The National Council for Geographic Education, 115 N. Marion Street, Oak Park, Illinois 60301.

Journal of the History of Ideas, Science Press, 300 W. Chestnut St., Ephrata, Pennsylvania 17511.

The Journal of Political Economy, University of Chicago Press, 5801 Ellis Ave., Chicago, Illinois 50537.

Journal of Social Psychology, Journal Press, 2 Commercial Street, Provincetown, Massachusetts 02637.

National Geographic Magazine, National Geographic Society, 17th & M Sts., N.W., Washington, D.C. 20036.

New York Times Book Review and Magazines sections New York Times, Inc., 229 W. 43rd St., New York 10036.

Quarterly Journal of Economics, Harvard University Press, 79 Garden St., Cambridge, Massachusetts 02138.

Saturday Review, Saturday Review Co., 450 Pacific Avenue, San Francisco, California 94133.

Survey of Current Business, Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402.

Journals of Opinion

Liberal:

The Nation (Associates), 333 Sixth Avenue, New York 10017.

The New Republic, 1244 19th St., N. W., Washington, D. C. 20036.

Conservative:

The American Mercury, P. O. Box 1
90505. (Available only with a sub
Observer Newsletter).

The Freeman, Irvington-on-Hudson,
National Review, Inc., 50 Emmett
06010.

D. Social Studie Inquiry Mate

1. **Curriculum Materials Analysis of Curr**
7-12: a quick overview, by means of t
pages, of the materials treated under p
chart is an adaptation of one appear
XXXVI (November 1972), pp. 720-
permission of the National Council
Washington, D. C., and of the authors.

History, Inc., 1822 Ludlow St.,
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5 St. James's Street, London, S.W.,

l Society, Broadway at 156th St., New

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can Geographical Society, Broadway at
32.
York 10016.
Institute and the Research Center for
m Press, 227 W. 17th St., New York

Thomas D. Clark, Executive Secretary,
ican Historians, 112 N. Bryan St.,
7401.
, 100 Trinity Place, New York 10006.
e National Council for Geographic
n Street, Oak Park, Illinois 60301.
as, Science Press, 300 W. Chestnut St.,
7511.
omy, University of Chicago Press, 5801
ois 50537.
, Journal Press, 2 Commercial Street,
setts 02637.
e, National Geographic Society, 17th &
n, D.C. 20036.
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St., New York 10036.
omics, Harvard University Press, 79
Massachusetts 02138.
Review Co., 450 Pacific Avenue, San
133.
Superintendent of Documents, U. S.
ffice, Washington, D.C. 20402.

tes), 333 Sixth Avenue, New York

244 19th St., N. W., Washington, D. C.

Conservative:

The American Mercury, P. O. Box 1306, Torrance, California 90505. (Available only with a subscription to *Washington Observer Newsletter).*

The Freeman, Irvington-on-Hudson, New York 10533. The National Review, Inc., 50 Emmett St., Bristol, Connecticut 06010.

D. Social Studies Inquiry Materials

1. **Curriculum Materials Analysis of Curriculum Materials, Grades** 7-12: a quick overview, by means of the chart on the next two pages, of the materials treated under part 2 of this section. The chart is an adaptation of one appearing in Social Education, XXXVI (November 1972), pp. 720-721. It is reprinted by permission of the National Council for the Social Studies, Washington, D. C., and of the authors.

1. A Materials Analysis of Curriculum Materials, Grades 7-12	1. Amherst College. The Committee on the Units in American History	2. Anthropology Curriculum Study Project, Patterns in Human History	4. California, University of, at Berkeley, Asian Studies Inquiry Program	5. California, University of, at Berkeley, World Studies Inquiry Series	6. California, University of, at Los Angeles, Committee on Civic Education	7. Carnegie-Mellon University, Slow Learner Project	8. Carnegie-Mellon University Social Studies Curriculum Project	9. Chicago, University of, Industrial Relation, Elementary Economics Project	11. Education Development Center Inc., From Subject to Citizen	12. Education Development Center, Inc., Man: A Course of Study	14. Georgia, University of Anthropology Curriculum Project	15. Harvard University, Social Studies Project
GRADE LEVEL(S)	11	9, 10	10-12	7-12	4-12	8, 9	9-12	4-8	8, 9	5-7	K-12	7-12
SUBJECT AREA*												
Social Science and History	AH	WH A	H AS	A, S G, AS	PS	AH, US	AH, E AS, PS WH	E	PS AH	P, I A	US, I, A	PI
Related Fields												
MATERIALS												
Student Text	X	X	X	X	X	X	X	X	X	X	X	X
Teacher's Guide	X	X	X	X	X	X	X	X	X	X	X	X
Student Workbook								X			X	
Test(s)				X		X	X	X			X	X
Non-Print Media												
FORMAT												
Multi-year					X		X	X			X	
1 Year	X			X		X			X	X		
Semester		X	X									
Unit												
Supplement												
NCSS GUIDELINE CRITERIA												
Contemporary Focus	TM	P	P	P	TM	P	TM	TM	TM	TM	P	P
Cultural, Racial, Ethnic Focus	N	P	P	P	P	P	TM	N	N	P	P	P
Value Conflicts	P	P	TM	TM	P	P	P	N	P	P	TM	P
Flexibility	P	P	P	P	P	P	TM	TM	TM	TM	TM	P
Variety												
Media	N	P	N	N	N	P	P	N	P	P	N	N
Learning Activities	N	P	N	N	TM	P	N	TM	P	P	TM	TM
Active Involvement												
Student	P	P	P	P	P	P	P	TM	P	P	P	P
Teacher	P	P	P	P	P	P	P	TM	P	P	P	P
Page Reference to Project Annotations												

1. Amherst College, The Committee on the Units in American History	2. Anthropology Curriculum Study Project, Patterns in Human History	4. California, University of, at Berkeley, Asian Studies Inquiry Program	5. California, University of, at Berkeley, World Studies Inquiry Series	6. California, University of, at Los Angeles, Committee on Civic Education	7. Carnegie-Mellon University, Slow Learner Project	8. Carnegie-Mellon University Social Studies Curriculum Project	9. Chicago, University of, Industrial Relation, Elementary Economics Project	11. Education Development Center Inc., From Subject to Citizen	12. Education Development Center, Inc., Man: A Course of Study	14. Georgia, University of Anthropology Curriculum Project	15. Harvard University, Social Studies Project	16. High School Geography Project, Geography in an Urban Age
11	9, 10	10-12	7-12	4-12	8, 9	9-12	4-8	8, 9	5-7	K-12	7-12	10
AH	WH A	H AS	A, S G, AS	PS	AH, US	AH, E AS, PS WH	E	PS AH	P, I A	US, I, A	PI	AS, E S, A PS, G
X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X
							X			X		X
			X		X	X	X			X	X	
				X		X	X			X		
X			X		X			X	X			X
	X	X										
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TM	P	P	P	TM	P	TM	TM	TM	TM	P	P	P
N	P	P	P	P	P	TM	N	N	P	P	P	P
P	P	TM	TM	P	P	P	N	P	P	TM	P	P
P	P	P	P	P	P	TM	TM	TM	TM	TM	P	P
N	P	N	N	N	P	P	N	P	P	N	N	P
N	P	N	N	TM	P	N	TM	P	P	TM	TM	P
P	P	P	P	P	P	P	TM	P	P	P	P	P
P	P	P	P	P	P	P	TM	P	P	P	P	P

1. A Materials Analysis of Curriculum Materials, Grades 7-12	17. Indiana University, High School Curriculum Center in Government	18. Law in American Society Foundation, Justice in Urban American Series	21. Ohio University, Manpower and Economic Education	23. San Jose State College, Economics in Society (Formerly ECON 12	24. Sociological Resources for the Social Studies	25. Tufts University: Lincoln Filene Center for Citizenship and Public Affairs	26. Utah State University Social Studies Project, Analysis of Public Issues
GRADE LEVEL(S)	9-12	9	8-10	12	10-12	K-12	9-12
SUBJECT AREA*							
Social Science and History	PS	E, PS, LA	E	E	US, S	PS US	PI
Related Fields							
MATERIALS							
Student Text	X	X	X	X	X	X	X
Teacher's Guide	X	X	X	X	X	X	X
Student Workbook	X						
Test(s)	X						
Non-Print Media							
FORMAT							
Multi-year						X	
1 Year	X			X			X
Semester	X	X	X		X		
Unit					X		
Supplement							
NCSS GUIDELINE CRITERIA							
Contemporary Focus	P	P	P	P	P	P	P
Cultural, Racial,							
Ethnic Focus	P	P	N	P	P	P	P
Value Conflicts	P	P	N	P	P	P	P
Flexibility	P	P	N	P	P	P	P
Variety							
Media	P	N	N	N	N	TM	P
Learning Activities	P	P	N	P	P	P	P
Active Involvement							
Student	P	P	TM	P	P	P	P
Teacher	P	P	TM	P	P	P	P
Page Reference to Project Annotations							

***Key to S**

A -- A
AH -- A
AS -- A
E -- E
G -- G
H -- H
I -- I
LA -- L
P -- P
PI -- P
PS -- P
S -- S
US -- U
WH -- W

****Key to**

P -- P
li
TM -- P
w
N -- N

17. Indiana University, High School Curriculum Center in Government	18. Law in American Society Foundation, Justice in Urban American Series	21. Ohio University, Manpower and Economic Education	23. San Jose State College, Economics in Society (Formerly ECON 12	24. Sociological Resources for the Social Studies	25. Tufts University: Lincoln Filene Center for Citizenship and Public Affairs	26. Utah State University Social Studies Project, Analysis of Public Issues
9-12	9	8-10	12	10-12	K-12	9-12
PS	E, PS, LA	E	E	US, S	PS US	PI
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X						
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P	P	N	P	P	P	P
P	P	N	P	P	P	P
P	P	N	P	P	P	P
P	N	N	N	N	TM	P
P	P	N	P	P	P	P
P	P	TM	P	P	P	P
P	P	TM	P	P	P	P

***Key to Subject Areas**

A	--	Anthropology
AH	--	American History
AS	--	Area Studies
E	--	Economics
G	--	Geography
H	--	Humanities
I	--	Interdisciplinary
LA	--	Law
P	--	Psychology
PI	--	Public Issues
PS	--	Political Science
S	--	Sociology
US	--	Urban Studies
WH	--	World History

****Key to Guidelines Criteria**

P	--	Present in Materials as Published
TM	--	Present in the Materials with Teacher Modification
N	--	Not part of the materials

2. Annotated Bibliography of Project Social Studies materials.

oAmherst Project Units in American History

General Editors: R. H. Brown and V. R. Halsey.
Publisher: Addison Wesley Publishing Company
2725 Sand Hill Road
Menlo Park, California 94205

These units are an application of the inquiry approach to the study of American History. In paperback form with 50 to 100 pages in each, they may be used for one week or more. Investigative in nature, the materials provide open-ended experiences for students in value clarification and historical method in analysis of conflicting accounts of various historical issues.

Guttman, A., *Freedom and Authority in Puritan New England*, 1970.
Bennett, P., *What Happened on Lexington Green? An Inquiry Into the Nature and Methods of History*, 1970.
Cohan, G., *Collective Security in the 1930's: The Failure of Man or the Failure of a Principle?*, 1970.
Baker, G., *Communism in America: Liberty and Security in Conflict*, 1970.
Harris, J., *Hiroshima: A Study in Science, Politics, and the Ethics of War*, 1970.
Traverso, E., *Korea and the Limits of Limited War*, 1970.
Beebe, R., *Thomas Jefferson, The Embargo, The Decision for Peace*, 1972.
Moulton, M., *Conscience and the Law: The Uses and Limits of Civil Disobedience*, 1973.
Minear, L., *Lincoln and Slavery: Ideals and the Politics of Change*, 1972.
Buffinton, T., *Imperialism and the Dilemma of Power*, 1971.
Guttmann, A., *God and the Government: The Uneasy Separation of Church and State*, 1972.
Casey, D., *The Rights of Americans: The Changing Balance of Liberty, Law and Order*, 1972.
Wilbur, W. A., *The Western Hero: A Study in Myth and American Values*, 1973.

oPatterns in Human History

Anthropology Curriculum Study P
Publisher: The Macmillan Compan
School Division
539 Turtle Creek South
Indianapolis, Indiana 4

Patterns is designed as a year-lo
anthropology or in various combi
to the first semester of World Hi
Societies," should be used first a
the ideas and tools for recogni
behavior. All or some of the kit
sociology course as students and t
observation and analysis of soc
treated are culture, adaptation, ob
and technology, as well as the bi
Kit prices range from $25.00 to $6
from $ .68 to $1.02 each.

Studying Societies
Origins of Humanness
The Emergence of Complex Societi
Modernization and Traditional Soc

oAsian Studies Inquiry Program

General Editors: John U. Michaeli
Publishers: Field Educational Publi
2400 Hanover Street
Palo Alto, California

Fifteen paperback units, with less t
divided into three areas of five u
heavily from such primary sourc
reports, and government documen
be used for world history studen
than average reading ability. Use o
made through integration in a worl
application could be also made to
Readings bring into focus East-
conflicts. Per-student cost would b
textbook costs.

of Project Social Studies materials.

n American History
l. Brown and V. R. Halsey.
esley Publishing Company
Hill Road
, California 94205

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History. In paperback form with 50 to
ey may be used for one week or more.
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nts in value clarification and historical
of conflicting accounts of various

dom and Authority in Puritan New

Happened on Lexington Green? An
Nature and Methods of History, 1970.
Security in the 1930's: The Failure of
of a Principle?, 1970.
m in America: Liberty and Security in

A Study in Science, Politics, and the
70.
d the Limits of Limited War, 1970.
fferson, The Embargo, The Decision for

nce and the Law: The Uses and Limits
nce, 1973.
nd Slavery: Ideals and the Politics of

lism and the Dilemma of Power, 1971.
and the Government: The Uneasy
rch and State, 1972.
of Americans: The Changing Balance
d Order, 1972.
Western Hero: A Study in Myth and
1973.

oPatterns in Human History
Anthropology Curriculum Study Project
Publisher: The Macmillan Company
School Division
539 Turtle Creek South Drive
Indianapolis, Indiana 46227

Patterns is designed as a year-long multimedia course in anthropology or in various combinations as an introduction to the first semester of World History. The Kit, "Studying Societies," should be used first as it introduces students to the ideas and tools for recognizing patterns in human behavior. All or some of the kits could also be used in a sociology course as students and teachers are involved in the observation and analysis of social data. Other concepts treated are culture, adaptation, objectivity, ethnocentrism, and technology, as well as the bio-cultural history of man. Kit prices range from $25.00 to $60.00 with student readings from $ .68 to $1.02 each.

Studying Societies
Origins of Humanness
The Emergence of Complex Societies
Modernization and Traditional Societies

oAsian Studies Inquiry Program
General Editors: John U. Michaelis and Robin J. McKeown.
Publishers: Field Educational Publications, Inc.
2400 Hanover Street
Palo Alto, California 94304

Fifteen paperback units, with less than 100 pages in each, are divided into three areas of five units each. Readings draw heavily from such primary sources as diaries, newspaper reports, and government documents. These materials could be used for world history students with average or better than average reading ability. Use of this project could be best made through integration in a world history course, although application could be also made to a humanities course. The Readings bring into focus East-West cultural and ethnic conflicts. Per-student cost would be no more than traditional textbook costs.

Asian Thought

1. Chinese Popular Fiction
2. Chinese Painting
3. Buddhism
4. Confucianism and Taoism
5. Gandhi

Changing Patterns of Asian Life

1. East Meets West
2. Modernization in Japan
3. Mao Tse-tung and the Chinese Revolution
4. Life in Communist China
5. China and the United States

Traditional Patterns of Asian Life

1. Man and His Environment in Asia
2. Food and Survival in Asia
3. Man and Woman in Asia
4. Class and Caste in Village India
5. Cultural Patterns in Asian Life

oWorld Studies Inquiry Series

General Editor: Robin J. McKeown
Publisher: Field Educational Publications, Inc.
2400 Hanover Street
Palo Alto, California 94304

This series is designed for junior and senior high students reading below grade level. Its global approach emphasizes anthropology, sociology, and geography. It could be used in a variety of social studies courses or as a course in itself. It would be most appropriate as an Area Studies course for students with below-average reading abilities. Each book costs under $2.00.

Holman, McKeown, Jamieson, *Europe.*
Marvin and Rubardiri, *Africa.*
McKeown, Birch and Weitzman, *Asia.*
Jamieson, *Latin America.*

oCommittee on Civic Education

General Editors: Charles N. Q
Longaker.
Publishers: Ginn and Company
Education Center
P. O. Box 2649
Columbus, Ohio 4321

Three paperbacks each costing un
American political system. Appropri
could be made at the junior high le
Voices could be used at higher levels

Quigley, *Your Rights and Respon*
Citizen.
Quigley and Longaker, *Conflict Poli*
Quigley and Longaker, *Voices for*
Democratic Procedures.

oCarnegie-Mellon University Slow Le

General Editor: Edwin Fenton
Publisher: Holt-Rinehart and Winsto
School Department
625 North Michigan Av
Chicago, Illinois 60611

These two programs have been desi
area of concern overlooked by mo
many critics. Although designed
programs have been used to good
programs as well. *The Americans*
American history, has available an a
containing cassette recordings, film
lists at $188.00, could be used wit
and social science courses as well.
uses all of the social science discipli
aspects of urban life. Student mate
to traditional textbook costs per stu

Fenton, *The Americans: A History*
Fenton, *Living in Urban America.*

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l Taoism

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Japan
l the Chinese Revolution
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Asian Life
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Village India
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J. McKeown
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for junior and senior high students
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s courses or as a course in itself. It
priate as an Area Studies course for
verage reading abilities. Each book

nieson, *Europe.*
frica.
eitzman, *Asia.*
a.

oCommittee on Civic Education

General Editors: Charles N. Quigley and Richard P. Longaker.

Publishers: Ginn and Company
Education Center
P. O. Box 2649
Columbus, Ohio 43216

Three paperbacks each costing under $2.00 focus on the American political system. Appropriate use of these materials could be made at the junior high level, although *Conflict* and *Voices* could be used at higher levels.

Quigley, *Your Rights and Responsibilities as an American Citizen.*
Quigley and Longaker, *Conflict Politics and Freedom.*
Quigley and Longaker, *Voices for Justice: Role-Playing in Democratic Procedures.*

oCarnegie-Mellon University Slow Learner Project

General Editor: Edwin Fenton

Publisher: Holt-Rinehart and Winston, Inc.
School Department
625 North Michigan Avenue
Chicago, Illinois 60611

These two programs have been designed for slow learners, an area of concern overlooked by most projects in the view of many critics. Although designed for junior high, these programs have been used to good advantage in high school programs as well. *The Americans,* which concentrates on American history, has available an audiovisual component kit containing cassette recordings, filmstrips, etc. This kit, which lists at $188.00, could be used with other American history and social science courses as well. *Living in Urban America* uses all of the social science disciplines to analyze the various aspects of urban life. Student materials costs are comparable to traditional textbook costs per student.

Fenton, *The Americans: A History of the United States.*
Fenton, *Living in Urban America.*

oCarnegie-Mellon University Social Studies Curriculum Project
General Editor: Edwin Fenton
Publisher: Holt, Rinehart and Winston, Inc.
School Department
625 North Michigan Avenue
Chicago, Illinois 60611

This project, incorporating a more structured approach in inquiry, includes content from most of the behavioral sciences. All or parts of the projects can be incorporated into history, government, economics, area studies, or, with some adjustment, the grade 12 course, *Humanities in Three Cities,* could be used in an urban studies course. This project defines the different courses for a particular grade level; however, as is true with so many of the new social studies projects, they may be used at different grade levels and not just those listed on the materials themselves. Text costs range up to $8.08, with audiovisual kits costing up to $200.00.

Schultz, *Comparative Political Systems*, grade 9.
Coleman, *Comparative Economic Systems*, grade 9.
Good, *The Shaping of Western Society*, grade 10.
Ford, *Tradition and Change in Four Societies*, grade 10.
Fenton, Fowler, and Mandelbaum, *A New History of the United States,* grade 11.
Fenton, *The Humanities in Three Cities*, grade 12.
Fenton, *Introduction to the Behavioral Sciences*, grade 12.

oEducation Development Center, Inc.
From Subject to Citizen
Publisher: Denoyer-Geppert Company
5235 Ravenwood Avenue
Chicago, Illinois 60640

The five units in **From Subject to Citizen** compare British and American experiences in history and government. A variety of teaching strategies also cause the student to come to grips with social and political values. Costs for a class of 30 would be $550. The five units comprising the course are:

Queen Elizabeth: Conflict and Compromise
The King vs the Commons
The Emergence of the American
The Making of the American Revolut
We, the People (Constitution unit)

oMan: A Course of Study
Publisher: Curriculum Development
1211 Connecticut Avenue
Suite 414
Washington, D. C. 20036

A course designed originally for fifth
application to the junior high level a
the senior high program. Centered
"What is human about human bei
drawn from many of the behavior
sociology, anthropology, and psych
rich in the variety of materials and st
field notes, journals, poems,
construction exercises, and observati
materials are no more costly than
any other course; however, the film
scare many teachers and administrat
be used over a long period of tim
studies classes, the high initial c
reasonably on a per-year basis over
School districts should understand
program provided through CDA mu
the materials may be used.

FILMS
"The Life Cycle of the Salmon" (10
"Herring Gull Behavior" (10 min.)
"Animals in Amboseli" (20 min.)
"The Younger Infant" (10 min.)
"The Older Infant" (8 min.)
"The Baboon Troop" (22 min.)
"Miss Goodall and the Wild Chimpan
"Fishing at the Stone Weir" (30 min
"Life on the Tundra" (14 min.)

ersity Social Studies Curriculum Project
lwin Fenton
nehart and Winston, Inc.
Department
rth Michigan Avenue
, Illinois 60611

porating a more structured approach in content from most of the behavioral s of the projects can be incorporated into ., economics, area studies, or, with some le 12 course, *Humanities in Three Cities,* urban studies course. This project defines s for a particular grade level; however, as y of the new social studies projects, they erent grade levels and not just those listed emselves. Text costs range up to $8.08, s costing up to $200.00.

e Political Systems, grade 9.
ve Economic Systems, grade 9.
of Western Society, grade 10.
Change in Four Societies, grade 10.
d Mandelbaum, *A New History of the*
e 11.
ities in Three Cities. grade 12.
n to the Behavioral Sciences, grade 12.

t Center, Inc.
zen
Geppert Company
enwood Avenue
llinois 60640

rom Subject to Citizen compare British riences in history and government. A trategies also cause the student to come nd political values. Costs for a class of 30 e five units comprising the course are:

nflict and Compromise
The King vs the Commons
The Emergence of the American
The Making of the American Revolution
We, the People (Constitution unit)

oMan: A Course of Study
Publisher: Curriculum Development Associates, Inc.
1211 Connecticut Avenue, N. W.
Suite 414
Washington, D. C. 20036

A course designed originally for fifth grade, it has particular application to the junior high level and has even been used in the senior high program. Centered around the question, "What is human about human beings?" the materials are drawn from many of the behavioral sciences, particularly sociology, anthropology, and psychology. The program is rich in the variety of materials and strategies it uses, including field notes, journals, poems, songs, stories, games, construction exercises, and observation projects. The written materials are no more costly than the written materials of any other course; however, the film costs of $1750.00 may scare many teachers and administrators. Since the films may be used over a long period of time, even in other social studies classes, the high initial cost may be amortized reasonably on a per-year basis over a long period of time. **School districts should understand that a teacher-training program provided through CDA must be conducted before the materials may be used.**

FILMS
"The Life Cycle of the Salmon" (10 min.)
"Herring Gull Behavior" (10 min.)
"Animals in Amboseli" (20 min.)
"The Younger Infant" (10 min.)
"The Older Infant" (8 min.)
"The Baboon Troop" (22 min.)
"Miss Goodall and the Wild Chimpanzees" (29 min.)
"Fishing at the Stone Weir" (30 min)
"Life on the Tundra" (14 min.)

"At the Caribou Crossing-Place" (29 min.)
"Autumn River Camp," Part I (26 min.)
"Autumn River Camp," Part II (32 min.)
"Winter Sea-Ice Camp," Part I (32 min.)
"Winter Sea-Ice Camp," Part II (30 min.)
"The Legend of the Raven," (20 min.)
"Knud" (31 min.) (Optional)

BOOKLETS
Life Cycle
Animal Adaptation
Information and Behavior
Innate and Learned Behavior
Natural Selection
Structure and Function
Salmon
Herring Gulls
The Observer's Handbook
Animals of the African Savanna
Baboons
The Baboon Troop
Baboon Communication
The Field Notes of Irven DeVore
A Journey to the Arctic
Songs and Stories of the Netsilik Eskimos
Antler and Fang
The Arctic
On Firm Ice
The Many Lives of Kiviok
This World We Know
The True Play
The Data Book
7 Additional Animal Books

OTHER MATERIALS
Words Rise Up (2-12" records)
In the Field (2-7" records)
5 filmstrips
23 maps, posters and photomurals
3 educational games
Eskimo cards

NINE TEACHER'S GUIDES,
information, bibliographies, sugges
for evaluation and a series of inser
are also included.

o**Anthropology Curriculum Project,** Un
General Editor: Marion J. Rice
Publisher: Anthropology Curriculu
This project utilizes a deductiv
introduce students to anthropolo
inductive strategies soon emer
discussion. Concepts of anthropolo
this program and are reemphasize
subsequent materials. Rarely costin
purchase, the materials represe
investment and emphasize many c
The skilled teacher may develop
strategies based on the use of th
design allows the school district to
the elementary or junior high.

Pershing, Bailey, and Kleg, *Life Cycl*
Kleg, Rice and Bailey, *Race, Caste a*
Kingston and Rice, *Language*
Rice, *Political Anthropology*
Rice, Clum, and Steinbrink, *Urban C*
Clawson and Rice, *The Changing W*
of Modernization in Japan, Keny

o**Harvard Public Issues Series,** Harvard
Project
General Editor: Donald W. Oliver
Publisher: American Education Publ
Education Center
Columbus, Ohio 43216

Costing approximately $ .40 per c
paperbacks is designed primarily t
various social studies courses for an
values in public issues. One or mo
discussion of the topic in each b

ssing-Place" (29 min.)
ip," Part I (26 min.)
ip," Part II (32 min.)
ip," Part I (32 min.)
ip," *Part II (30 min.)*
Raven," (20 min.)
Optional)

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Books

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photomurals

NINE TEACHER'S GUIDES, containing background information, bibliographies, suggested lesson plans, strategies for evaluation and a series of inservice seminars for teachers, are also included.

o**Anthropology Curriculum Project,** University of Georgia
General Editor: Marion J. Rice
Publisher: Anthropology Curriculum Project

This project utilizes a deductive approach initially to introduce students to anthropological concepts; however, inductive strategies soon emerge in questioning and discussion. Concepts of anthropology are introduced early in this program and are reemphasized over and over again in subsequent materials. Rarely costing over $2.00 per pupil to purchase, the materials represent a most reasonable investment and emphasize many of the behavioral sciences. The skilled teacher may develop some value clarification strategies based on the use of the materials. Flexibility in design allows the school district to use the materials in either the elementary or junior high.

Pershing, Bailey, and Kleg, *Life Cycle*
Kleg, Rice and Bailey, *Race, Caste and Prejudice*
Kingston and Rice, *Language*
Rice, *Political Anthropology*
Rice, Clum, and Steinbrink, *Urban Community*
Clawson and Rice, *The Changing World Today: Case Studies of Modernization in Japan, Kenya, and India*

o**Harvard Public Issues Series,** Harvard University Social Studies Project
General Editor: Donald W. Oliver
Publisher: American Education Publications
Education Center
Columbus, Ohio 43216

Costing approximately $ .40 per copy, this series of short paperbacks is designed primarily to be "plugged in" to various social studies courses for an analysis of positions and values in public issues. One or more weeks is required for discussion of the topic in each booklet depending upon student and teacher interest in grades 7 through 12. Using a jurisprudential approach, these paperbacks focus on the "public man" and values clarification.

Jacksonian Democracy
The Progressive Era
Population Control
Privacy
The American Revolution
Negro Views of America
The Rise of Organized Labor
The Immigrant's Experience
The Railroad Era
Religious Freedom
The Civil War
The New Deal
Municipal Politics
Community Change
Status
Race and Education
Rights of the Accused
The Lawsuit
Science and Public Policy
Taking a Stand
The Limits of War
Revolution and World Politics
Diplomacy and International Law
Organizations Among Nations
Nazi Germany
Colonial Africa
20th Century Russia
Communist China

o**Geography in an Urban Age**, High School Geography Project
Publisher: The Macmillan Company
539 Turtle Creek South Drive
Indianapolis, Indiana 46227

Although designed as a year-long course in high school geography, this project can easily be integrated into other social sciences. For example, Unit One could be used in an urban studies course, Two in
sociology-anthropology, Four in
government, and Unit Six in area s
adaptation, to other social studi
strategies are used, including some
this highly inquiry-oriented program.
Costs range from a little over $300
$80 to $100 for the remaining uni
students.

Unit 1. *Geography of Cities*
Unit 2. *Manufacturing and Agricultu*
Unit 3. *Cultural Geography*
Unit 4. *Political Geography*
Unit 5. *Habitat and Resources*
Unit 6. *Japan*

o**American Political Behavior, Indiana**
Curriculum Center in Government
Editors: Howard Mehlinger and Jo
Publisher: Ginn and Company
Education Center
P.O. Box 2649
Columbus, Ohio 43216

An inquiry and behavioral appro
political behavior as opposed to
government materials which emph
government. Such concepts as politi
socialization are used to analyze
Designed as a full-year course in har
divided the program into two pape
which may be used for a one-semes
instructional strategies allow the hig
examine political attitudes and
hardback edition costs $5.22 with
costing approximately $2.50 each.

Mehlinger and Patrick, *American Po*
Unit 1, "Introduction to the Stud
Unit 2, "Similarities and Differe
Behavior"

terest in grades 7 through 12. Using a ich, these paperbacks focus on the es clarification.

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lan Company
Creek South Drive
, Indiana 46227

s a year-long course in high school ct can easily be integrated into other xample, Unit One could be used in an urban studies course, Two in economics, Three in sociology-anthropology, Four in political science or government, and Unit Six in area studies and, with teacher adaptation, to other social studies. A wide variety of strategies are used, including some excellent simulations in this highly inquiry-oriented program.

Costs range from a little over $300 for Unit One and from $80 to $100 for the remaining units for a classroom of 30 students.

Unit 1. *Geography of Cities*
Unit 2. *Manufacturing and Agriculture*
Unit 3. *Cultural Geography*
Unit 4. *Political Geography*
Unit 5. *Habitat and Resources*
Unit 6. *Japan*

oAmerican Political Behavior, Indiana University High School Curriculum Center in Government

Editors: Howard Mehlinger and John J. Patrick
Publisher: Ginn and Company
Education Center
P.O. Box 2649
Columbus, Ohio 43216

An inquiry and behavioral approach which emphasizes political behavior as opposed to traditional expository government materials which emphasize the structure of government. Such concepts as political culture and political socialization are used to analyze political relationships. Designed as a full-year course in hardback, the publisher has divided the program into two paperback editions, each of which may be used for a one-semester course. A variety of instructional strategies allow the high school student to also examine political attitudes and values. The complete hardback edition costs $5.22 with individual paperbacks costing approximately $2.50 each.

Mehlinger and Patrick, *American Political Behavior*. Book I
Unit 1, "Introduction to the Study of Political Behavior"
Unit 2, "Similarities and Differences in Political Behavior"

Unit 3, "Elections and Voting Behavior"
Mehlinger and Patrick, *American Political Behavior,* Book II
Unit 4, "Political Decision-Makers"
Unit 5, "Unofficial Political Specialists"

oJustice in Urban America, Law in American Society Foundation
General Editor: Robert H. Ratcliffe
Publisher: Houghton Mifflin Company
110 Tremont Street
Boston, Massachusetts 02107

The six paperbacks in this series could be best utilized as supplementary materials in government, economics, sociology, and urban studies courses. Focusing on urban America and treating some contemporary controversial issue, the student analyzes values, beliefs, attitudes, justice, individual rights in relation to the legal system. Reasonably priced at $1.20, they may be used in junior high and senior high.

Law and the City
Youth and the Law
Crimes and Justice
Law and Consumer
Landlord and Tenant
Poverty and Welfare

o Manpower and Economic Education: A Personal and Social Approach to Career Education
Editors: Robert L. Darcy and Phillip E. Powell
Publisher: Love Publishing Co.
Denver, Colorado 80222

With the basic themes of economics and manpower development, this course is designed to be used one semester or more for junior or senior high school studies. Schools interested in career education would also find the materials useful in assisting students to understand the social, economic, psychological, and political implications in the "World of Work." Costs are approximately $3.50 for each set of student materials.

oEconomics in Society
General Editor: Suzanne Wiggins H
Publisher: Addison-Wesley Publishi
106 West Station Stree
Barrington, Illinois 60

A teacher-training kit and six pa
available for a varied strategy co
better high school student, focus
and analysis and their application
United States. Two of these
economics of the second and third

oSociological Resources for the S
Sociological Association
Editors: Robert A. Feldmesser, R
MacGill Hughes
Publisher: Allyn and Bacon
Rockleigh, New Jersey

A three-part program in social in
discipline of sociology, although
may be adapted to a variety of
with many contemporary topics
cognitive domain gives a high deg
school student in the 1970's.
introductory sociology course b
focuses on three major the
stratification, and social change. T
in sets of 10, each range from $3.
range from $1.56 to $1.78 each.

Inquiries in Sociology

Readings in Sociology Series
Cities and City Life
Life in Families
Racial and Ethnic Relations
Delinquents and Criminals: Their S
Social Organizations
Population Growth and the Compl
Crowd and Mass Behavior

ons and Voting Behavior"
rick, *American Political Behavior*, Book II
cal Decision-Makers"
ficial Political Specialists"

rica, Law in American Society Foundation
obert H. Ratcliffe
on Mifflin Company
mont Street
Massachusetts 02107

ks in this series could be best utilized as materials in government, economics, rban studies courses. Focusing on urban ting some contemporary controversial issue, lyzes values, beliefs, attitudes, justice, in relation to the legal system. Reasonably they may be used in junior high and senior

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onomic Education: A Personal and Social Education
L. Darcy and Phillip E. Powell
ublishing Co.
, Colorado 80222

themes of economics and manpower course is designed to be used one semester ior or senior high school studies. Schools er education would also find the materials ing students to understand the social, ological, and political implications in the " Costs are approximately $3.50 for each set ls.

Manpower and Economic Education, © 1973.

o**Economics in Society**
General Editor: Suzanne Wiggins Helburn
Publisher: Addison-Wesley Publishing Company
106 West Station Street
Barrington, Illinois 60010

A teacher-training kit and six paperback student books are available for a varied strategy course in economics for the better high school student, focusing on economic concepts and analysis and their application to current problems in the United States. Two of these paperbacks focus on the economics of the second and third worlds.

o**Sociological Resources for the Social Studies** American Sociological Association
Editors: Robert A. Feldmesser, Robert C. Angell, and Helen MacGill Hughes
Publisher: Allyn and Bacon
Rockleigh, New Jersey 07647

A three-part program in social inquiry which focuses on the discipline of sociology, although the Episodes and Readings may be adapted to a variety of the social sciences. Dealing with many contemporary topics in both the affective and cognitive domain gives a high degree of relevancy to the high school student in the 1970's. The *Inquiries* book, an introductory sociology course book sells for $5.67 and focuses on three major themes: socialization, social stratification, and social change. The episodes, available only in sets of 10, each range from $3.90 to $6.72, and Readings range from $1.56 to $1.78 each.

Inquiries in Sociology

Readings in Sociology Series
Cities and City Life
Life in Families
Racial and Ethnic Relations
Delinquents and Criminals: Their Social World
Social Organizations
Population Growth and the Complex Society
Crowd and Mass Behavior

Episodes in Social Inquiry Series

Leadership in American Society: A Case Study of Black Leadership
The Incidence and Effects of Poverty in the United States
Images of People
Testing for Truth: A Study of Hypothesis Evaluation
Social Mobility in the United States
Social Change: The Case of Rural China
Science and Society
Small Group Processes
Religion in the United States
Family Form and Social Setting
Simulating Social Conflict
Migration Within the United States
Roles of Modern Women
Transitions
Class and Race in the United States
Family Size and Society
Divorce in the United States
The Early Twenties and the Late Sixties: Two Generation Gaps
Cities: Where People Live and Why
Contemporary Soviet Society
Population Change: A Case Study of Puerto Rico
Delinquency
Values in Mass Communication: A Study of the Western Hero

oHigh School Social Studies Program

Editor: John S. Gibson
Publisher: Lincoln Filene Center of Citizenship and Public Affairs
Tufts University
Medford, Massachusetts 02155

Some 38 paperbacks ranging in price from $ .35 to $2.00 are available to cover ten topics with a political science theme. The chief usefulness of this program appears to be as a supplement to existing courses, not just government. Useful teacher guides are available at $.50 to $1.00 each.

Program I. Dimensions of Citzenship

II. Politics and Policy Ma
III. Urban Problems and P
IV. The American Econom
V. American Civilization a
VI. The Law and Citizensh
VII. The International Syst
VIII. Minorities in Contempo
IX. Current Affairs Social
X. Readings for Junior Hi

oAnalysis of Public Issues

Editors: James P. Shaver and A. Guy
Publisher: Houghton Mifflin Compa
1900 S. Batavia Avenue
Geneva, Illinois 60134

The project consists of a basic stu
supplementary booklets, all of whic
on ethics and values. Utilizing a
project could be used in high
implemented into other social stud
for the text, $64.50 for an audi
assignments, tests, and $1.65 for eac

Student Text
Decision Making in a Democracy
Problems Booklets
Progress and the Environment:
Historical Study of American Ind
Students' Rights
American Indians in Contempora
The Police and Black America
Race Riots in the Sixties
Women: The Majority-Minority

Series
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Study of Hypothesis Evaluation
United States
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and the Late Sixties: Two Generation

Live and Why
Society
Case Study of Puerto Rico

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Massachusetts 02155

anging in price from $ .35 to $2.00 are topics with a political science theme. of this program appears to be as a ting courses, not just government. are available at $.50 to $1.00 each.

ns of Citzenship

II. Politics and Policy Making
III. Urban Problems and Prospects
IV. The American Economic System
V. American Civilization and History
VI. The Law and Citizenship
VII. The International System Themes and Decisions
VIII. Minorities in Contemporary American Society
IX. Current Affairs Social Studies Series
X. Readings for Junior High Students

oAnalysis of Public Issues

Editors: James P. Shaver and A. Guy Larkins
Publisher: Houghton Mifflin Company
1900 S. Batavia Avenue
Geneva, Illinois 60134

The project consists of a basic student textbook and some supplementary booklets, all of which focus in large measure on ethics and values. Utilizing a variety of strategies, this project could be used in high school government or implemented into other social studies courses. Costs $4.80 for the text, $64.50 for an audiovisual kit, $27.00 for assignments, tests, and $1.65 for each student booklet.

Student Text
Decision Making in a Democracy
Problems Booklets
Progress and the Environment: Water and Air Pollution
Historical Study of American Indians
Students' Rights
American Indians in Contemporary Society
The Police and Black America
Race Riots in the Sixties
Women: The Majority-Minority

E. Simulation Games*

1. Resources

GOVERNMENT

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	
American Government Simulation Series 1. American Constitutional Convention 2. Budgetary Process 3. Presidential Election Campaign 4. Congressmen at Work 5. Congressional Committees	indefinite	varies	H. S.	S. R. A.	$1.00 .80	per stu instruc Im An his
Campaign	23-46	8+	8-12	Instructional Simulations, Inc.	125.00	Th ele
Conflict in the Middle East	18-45	3-10	9-12	Lincoln Filene Center	2.00 .25	Teacher Student Po in
Convention!	3-7	2-4	7-12	Games Research Inc.	5.00	Ho wo
Crisis	18-36	3-5	7-12	Simile II	50.00	Re co enc wo
Dangerous Parallel	18-36	5	H. S.	Scott, Foresman	60.00	To a n
Democracy	6-11	½-4	7-12	Western	8.00	Re

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*A listing of simulation games for possible use in junior-senior high social studies incorporating handbook methodology. Prices eff

ulation Games*

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GOVERNMENT

	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
ment nstitutional ocess Election Campaign at Work Committees	indefinite	varies	H. S.	S. R. A.	$1.00 .80	per student handbook instructor's guide Important aspects of American government, both historical and present day.
	23-46	8+	8-12	Instructional Simulations, Inc.	125.00	The party system and electioneering
iddle East	18-45	3-10	9-12	Lincoln Filene Center	2.00 .25	Teacher's manual Student Manual Power and policy making in the world today.
	3-7	2-4	7-12	Games Research Inc.	5.00	How presidential convention works.
	18-36	3-5	7-12	Simile II	50.00	Resolving an international conflict in a mining area of enormous importance to the world.
	18-36	5	H. S.	Scott, Foresman	60.00	Top-level decision makers of a nation.
	6-11	½-4	7-12	Western	8.00	Representative government.

lation games for possible use in junior-senior high social studies incorporating handbook methodology. Prices effective as of May 1974.

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	F
Election: The Game for President	4+	30-60 min.	7-12	Educational Games Company	$ 5.95	Presi presi syste
Guns or Butter	18-28	1½	7-12	Simile II	25.00	Natio
In Force	25-35	8-20	9-12	Instructional Simulations, Inc.	65.00	Crim
Inter-Nation Simulation Kit	24-50	1½	H. S.	SRA	60.00	Fore
Metropolitics	18-35	indefinite	7-12	Simile II	50.00	Vari ment
Napoli	9-33	2-4	7-12	Simile II	50.00	Legi
Plans	12-36	3-8	H. S.	Simile II	50.00	Inter
Powers (4 games) 1. International Politics 2. National Politics 3. Local Politics 4. Corporate Behavior	all members of class	5 per game (total 20 hr)	7-12	Scott, Foresman	13.98	Rela tions
Simulation: The Decision-Making Model	16-50	4	H. S.	World Affairs Council of Philadelphia	3.50	Fore
Sitte	10-30	2-4	7-12	Simile II	50.00	Inte gove

	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
for	4+	30-60 min.	7-12	Educational Games Company	$ 5.95	Presidential and vice-presidential election system.
	18-28	1½	7-12	Simile II	25.00	National wealth vs. Security
	25-35	8-20	9-12	Instructional Simulations, Inc.	65.00	Criminal justice
on Kit	24-50	1½	H. S.	SRA	60.00	Foreign Affairs
	18-35	indefinite	7-12	Simile II	50.00	Various types of governments in metropolitan areas.
	9-33	2-4	7-12	Simile II	50.00	Legislative process
	12-36	3-8	H. S.	Simile II	50.00	Interest groups
litics	all members of class	5 per game (total 20 hr)	7-12	Scott, Foresman	13.98	Relationship of communications to authority.
ior						
cision-	16-50	4	H. S.	World Affairs Council of Philadelphia	3.50	Foreign policy decision-making
	10-30	2-4	7-12	Simile II	50.00	Interest groups in city government.

AMERICAN HISTORY

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	F
American History Games 1. Colony 2. Frontier 3. Reconstruction 4. Promotion 5. Intervention 6. Development	up to 35	varies	7-12	SRA	$204.12	set M A
Battle of the Bulge (2 Games in 1)	2+	3-6	7-12	Avalon Hill Co.	7.00	Co Ba
Destiny	25-40	5	7-12	Interact	10.00	Cu
Discovery			J. H.	Interact	10.00	Pr An
Disunia	20-35	2-4	7-12 H. S.	Interact	10.00	Ar 17
Division	16-35	5-15	7-12	Interact	10.00	Iss in
Empire	15-36	2-4	8-12	Abt	24.95	Tr Ce
Explorer I - II	18-35	15-20 15-min. periods	J. H.	Simile II	4.50	Ea of
Gettysburg	2+	2-4	7-12	Avalon Hill Co.	7.00	Ba
Hard Rock Mine Strike	11-35	2	7-12	Random House	35.00	La flic ear
Homesteaders	18-35	10-15 30-min. periods	J. H.	Simile II	$10.00	Ho Uni 188

AMERICAN HISTORY

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
up to 35	varies	7-12	SRA	$204.12 set	Major issues in America's past.
2+	3-6	7-12	Avalon Hill Co.	7.00	Competing forces at the Battle of the Bulge
25-40	5	7-12	Interact	10.00	Cuban Crisis of 1898
		J. H.	Interact	10.00	Problems of 17th Century American colonists
20-35	2-4	7-12 H. S.	Interact	10.00	Articles of Confederation, 1781-1789
16-35	5-15	7-12	Interact	10.00	Issues facing Americans in the 1850's
15-36	2-4	8-12	Abt	24.95	Trading system of 18th Century British Empire.
18-35	15-20 15-min. periods	J. H.	Simile II	4.50	Early day discoverers of North America
2+	2-4	7-12	Avalon Hill Co.	7.00	Battle at Gettysburg
11-35	2	7-12	Random House	35.00	Labor-management conflicts in late 19th and early 20th Century.
18-35	10-15 30-min. periods	J. H.	Simile II	$10.00	Homesteaders in western United States, 1870's and 1880's.

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	F
Panic	25-36	23	7-12	Interact	10.00	Gr 19
Powderhorn	18-35	1+	J. H.	Simile II	12.50	Ea de
Railroad Game	10-35	1-3	7-12	American Education Publications	.30 each	Ba thi for
Roaring Camp	18-35	10-15 30-min. periods	J. H.	Simile II	10.00	Lif in Ce
1787 - A Simulation Game	up to 20	3-10	7-12	Olcott Forward, Inc.	20.50	Co

ECONOMICS

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	
Baldicer	10-20	2-4	H. S.	John Knox Press	$25.00	Int ec
Banking	minimum of 6	2-5	H. S.	Didactic Systems	10.00	Co
The Blue Wodjet Company	25-30	8-12 30-min.	7-10	Simile II	3.00	St go
Budgeting Game	teams of 4	2-4	7-12	Changing Times Education Services	22.50 for u 2.95 separa	Co fa
Clug	3-30	3-15 in teams	H. S.	The Free Press	75.00	Co ur
Consumer	11-34	1½-2½	7-12	Western	30.00	Co ins

	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
	25-36	23	7-12	Interact	10.00	Great Depression of 1920-1940.
	18-35	1+	J. H.	Simile II	12.50	Early settlers, meaning of democracy.
	10-35	1-3	7-12	American Education Publications	.30 each	Bargaining, strategic thinking, and coalition formation.
	18-35	10-15 30-min. periods	J. H.	Simile II	10.00	Life in a mining community in western U.S. in 19th Century.
Game	up to 20	3-10	7-12	Olcott Forward, Inc.	20.50	Constitutional Convention

ECONOMICS

	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	
	10-20	2-4	H. S.	John Knox Press	$25.00	Interdependence of world economy.
	minimum of 6	2-5	H. S.	Didactic Systems	10.00	Commercial banking.
npany	25-30	8-12 30-min.	7-10	Simile II	3.00	Structure, problems and goals of a corporation.
	teams of 4	2-4	7-12	Changing Times Education Services	22.50 for unit 2.95 separately	Consumer economics family spending.
	3-30	3-15 in teams	H. S.	The Free Press	75.00	Community development urban economics
	11-34	1½-2½	7-12	Western	30.00	Consumer education: installment buying

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	F
Economic Decision Games (8 games) 1. Collective Bargaining 2. The Firm 3. The Market 4. The Community 5. Scarcity and Allocation 6. Banking 7. The National Economy 8. International Trade	approx. 30	varies	12	SRA	$10.00-17.50 per gam	Pr are
Economic System	7-13 in teams	2-4	7-12	Western	25.00	A sys ing
F.L.I.P. (Family Life Income Patterns)	2-30	5-15	9-12	Instructional Simulations, Inc.	34.00	Co
Market	18-40 in teams	2-3	7-8	Benefic Press	48.00	Pri an
Market Game	20-50	30	7-8	Joint Council on Economic Education	$ 1.75	Su
Marketplace	20-50	2-12	H. S.	Joint Council on Economic Education	75.00	Dy eco
Strike	16-40	2-3	H. S.	The Macmillan Co.	11.00	La
Trade and Development	4-12	30-60 min.	7-12	Academic Games Assoc., Inc.	4.00	Na

GEOGRAPHY

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	I
The Game of Farming	15-30	4½-6	H. S.	Macmillan	$98.70	(Unit Fa
Location of the Metfab Company	5-10 per group	5-6	H. S.	Macmillan	98.70	(Unit Ma me

	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
mes mes) ing	approx. 30	varies	12	SRA	$10.00- 17.50 per game	
						Problem-solving in critical areas of economics.
ation						
nomy e						
	7-13 in teams	2-4	7-12	Western	25.00	A competitive economic system--production, marketing, consumption.
Patterns)	2-30	5-15	9-12	Instructional Simulations, Inc.	34.00	Consumer education.
	18-40 in teams	2-3	7-8	Benefic Press	48.00	Principles of supply and demand.
	20-50	30	7-8	Joint Council on Economic Education	$ 1.75	Supply and demand.
	20-50	2-12	H. S.	Joint Council on Economic Education	75.00	Dynamics of our economic system.
	16-40	2-3	H. S.	The Macmillan Co.	11.00	Labor-management relations.
t	4-12	30-60 min.	7-12	Academic Games Assoc., Inc.	4.00	National-international trade.

GEOGRAPHY

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
15-30	4½-6	H. S.	Macmillan	$98.70	(Unit 2 complete) Farmers' decision-making.
5-10 per group	5-6	H. S.	Macmillan	98.70	(Unit 2 complete) Management of hypothetical metal-fabricating company.

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FO
Point Roberts	30	6	H. S.	Macmillan	50.85	(Unit Set bo
Portsville	6 per map board, 4 map boards per 30 students	8-10	H. S.	Macmillan	319.55	(Unit Ur dec cor
Section	40	5-8	H. S.	Macmillan	50.85	(Unit Pro and

SOCIOLOGY

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FO
The Games People Play	1-8	variable	7-12	MACSCO	10.00	Rec and
Generation Gap	4-6	½-1	J. S.	Western	15.00	Par
Ghetto	7-10	2-4	7-12	Western	24.00	Pre
Hang Up	3-6	1 minimum	7-12	Synectics Education	15.00	Cha atti
Impact	20-50	8-20	7-12	Instructional Simulations, Inc.	160.00	Cor
Insight	2-20	1½-3	7-12	Games Research, Inc.	8.00	Pow per
SIMSOC	20-60	5-6	H. S.	Free Press	3.95	Soc cou
Starpower	18-35	1-2	any	Simile II	$25.00	Soc soc

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
30	6	H. S.	Macmillan	50.85	(Unit 4 complete) Settlement of national boundary dispute.
6 per map board, 4 map boards per 30 students	8-10	H. S.	Macmillan	319.55	(Unit 1 complete) Urban synthesis, logical decision-making, group corporation.
40	5-8	H. S.	Macmillan	50.85	(Unit 4 complete) Problems of state legislatures and act of compromise.

SOCIOLOGY

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
1-8	variable	7-12	MACSCO	10.00	Recognizing social actions and their consequences.
4-6	½-1	J. S.	Western	15.00	Parent-teen interaction.
7-10	2-4	7-12	Western	24.00	Pressures on urban poor.
3-6	1 minimum	7-12	Synectics Education	15.00	Changing white racist attitudes.
20-50	8-20	7-12	Instructional Simulations, Inc.	160.00	Community action.
2-20	1½-3	7-12	Games Research, Inc.	8.00	Powers of perception of personality.
20-60	5-6	H. S.	Free Press	3.95	Social conflict and social control.
18-35	1-2	any	Simile II	$25.00	Socio-economic levels of society. Uses of power.

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	
Sunshine	20-35	16-22	7-12	Interact	10.50	R

WORLD STUDIES

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	
Afrika Corps	2+	2-4	7-12	Avalon Hill Co.	$ 5.98	Fi th
Anzio (6 Games in One)	2+	1-10	7-12	Avalon Hill Co.	6.98	C B
Bismark	2	1-2	7-12	Avalon Hill Co.	5.98	S G
Conflict	24-40	5-10	11-12	Simile II	50.00	W
Czar Power	20-35	8-12	9-12	Instructional Simulations, Inc.	22.50	C of
D-Day	2+	2-6	7-12	Avalon Hill Co.	5.98	A ar
Down With the King	8-35	3	J. H.	Herder and Herder	7.95	M m th
Guadalcanal	2+	3-6	7-12	Avalon Hill Co.	6.98	C ba
Jutland	2+	3-6	7-12	Avalon Hill Co.	7.98	C in Ju
Midway	2+	2-6	7-12	Avalon Hill Co.	$ 5.98	O ba
Mission	25-40	5	7-12	Interact	10.00	A S.

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
20-35	16-22	7-12	Interact	10.50	Racial relations.

WORLD STUDIES

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
2+	2-4	7-12	Avalon Hill Co.	$ 5.98	Field Marshal Rommel and the Allies in North Africa.
2+	1-10	7-12	Avalon Hill Co.	6.98	Competing forces in the Battle for Italy.
2	1-2	7-12	Avalon Hill Co.	5.98	Strategy of defeating the German battleship, Bismark.
24-40	5-10	11-12	Simile II	50.00	World disarmament.
20-35	8-12	9-12	Instructional Simulations, Inc.	22.50	Czarist Russia during reign of Alexander II.
2+	2-6	7-12	Avalon Hill Co.	5.98	Allied armies and German armies on D-Day.
8-35	3	J. H.	Herder and Herder	7.95	Medieval period in history, medieval people exercising their limited political power.
2+	3-6	7-12	Avalon Hill Co.	6.98	Competing forces at the battle of Guadalcanal.
2+	3-6	7-12	Avalon Hill Co.	7.98	Commanders of the forces involved in the battle of Jutland, 1916.
2+	2-6	7-12	Avalon Hill Co.	$ 5.98	Opposing forces in battle of Midway.
25-40	5	7-12	Interact	10.00	America's "Mission" in S. E. Asia.

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	F
1914 (7 Games in 1)	2+	4-10	7-12	Avalon Hill Co.	7.98	Wo
Stalingrad	2+	3-6	7-12	Avalon Hill Co.	5.98	Ba
Triangle Trade	15-44	1-3	8-12	Instructional Development Corp.	15.00	Re Me ec of

ECOLOGY

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	F
Dirty Water	5-10	1-3	7-12	Urban Systems, Inc.	10.00	Pr po
Ecology	5-10	1-3	7-12	Urban Systems, Inc.	10.00	Fo de wi
No Dam Action	20-40	6-20	8-12	Instructional Simulations, Inc.	85.00	Ec m
Pollution: Negotiating a Clean Environment	4-32	indefinite	7-12	Instructional Development Corp.	22.50	Tr or m
Smog	2-4	1-2½	7-12	Urban Systems, Inc.	10.00	Pr ci

GENERAL SOCIAL SCIENCE

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	F
Life Career	2-20	1-6	7-12	Western	35.00	D ed le
The Drug Debate	6-35	45 min.	J. H.- S. H.	Academic Games Assoc., Inc.	25.00	Pr

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
2+	4-10	7-12	Avalon Hill Co.	7.98	World War I.
2+	3-6	7-12	Avalon Hill Co.	5.98	Battle of Stalingrad.
15-44	1-3	8-12	Instructional Development Corp.	15.00	Relationship of British Mercantile System to the economical development of New England.

ECOLOGY

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
5-10	1-3	7-12	Urban Systems, Inc.	10.00	Problems of water pollution.
5-10	1-3	7-12	Urban Systems, Inc.	10.00	Four stages of mankind's development, and a balance with the environment.
20-40	6-20	8-12	Instructional Simulations, Inc.	85.00	Ecology - water resources management.
4-32	indefinite	7-12	Instructional Development Corp.	22.50	Trade-offs between personal or corporate goals and environmental quality.
2-4	1-2½	7-12	Urban Systems, Inc.	10.00	Problems of air pollution and city management.

GENERAL SOCIAL SCIENCE

NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
2-20	1-6	7-12	Western	35.00	Decisions about careers, education, family, life, leisure time.
6-35	45 min.	J. H.-S. H.	Academic Games Assoc., Inc.	25.00	Pros and Cons of Drugs.

URBAN AFFAIRS

GAME	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	F
Clug (Community Land Use Game)	3-15	3-20	H. S.	Systems Gaming Associates	$125.00	Ur
Impact	20-40	4-10 hrs. in 15-30 min. periods	7-12	Instructional Simulations, Inc.	160.00	Ch for co
Inner City Planning	12-40	3-5	H. S.	The Macmillan Co.	15.00	Ur
Tracts	20-40	2-8	6-12	Instructional Simulations, Inc.	39.00	Ur
Yes, But Not Here	20-40	2-3	7-12	The Macmillan Co.	12.00	Int pu

2. Publishers of Simulation Games

Abt Associates, Inc.
55 Wheeler Street
Cambridge, Mass. 02138

Academic Games Associates
430 East 33rd Street
Baltimore, Md. 21218

American Education Publications
55 High Street
Middletown, Connecticut

Applied Simulations International, Inc.
1100 - 17th Street, N.W.
Washington, D.C. 20036

Avalon Hill Company
4517 Hartford Road
Baltimore, Md. 21214

Baldicer Games
Box 1176
Richmond, Va. 23209

Benefic Press
10300 West Roosevelt Road
Westchester, Ill. 60153

Changing Times
Education Service
1729 H Street, N.W.
Washington, D.C. 20006

Contemporary Drama Service
Arthur Meriwether, Inc.
Box 68
Downers Grove, Ill. 60515

Current Affairs Films
527 Madison Avenue
New York, N.Y. 10022

Dida
P.O.
West

Educ
Box
Peek

Free
60 F
New

Gam
48 W
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URBAN AFFAIRS

	NO. OF PLAYERS	PLAYING TIME	GRADE LEVEL	PUBLISHER	PRICE	FOCUS
Use Game)	3-15	3-20	H. S.	Systems Gaming Associates	$125.00	Urban development.
	20-40	4-10 hrs. in 15-30 min. periods	7-12	Instructional Simulations, Inc.	160.00	Change and consensus-forming process in a community.
	12-40	3-5	H. S.	The Macmillan Co.	15.00	Urban renewal.
	20-40	2-8	6-12	Instructional Simulations, Inc.	39.00	Urban land development.
	20-40	2-3	7-12	The Macmillan Co.	12.00	Interest groups and a public housing problem.

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Richmond, Va. 23209

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10300 West Roosevelt Road
Westchester, Ill. 60153

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1729 H Street, N.W.
Washington, D.C. 20006

Contemporary Drama Service
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Downers Grove, Ill. 60515

Current Affairs Films
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New York, N.Y. 10022

Didactic Systems, Inc.
P.O. Box 500
Westbury, N.Y. 11590

Educational Games Company
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Peekskill, N.Y. 10566

Free Press
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New York, N.Y. 10011

Games Research, Inc.
48 Wareham Street
Boston, Mass. 02118

Herder and Herder
232 Madison Avenue
New York, New York

Instructional Development Corp.
P. O. Box 805
Salem, Oregon 97304

Instructional Simulations, Inc.
2147 University Avenue
St. Paul, Minn. 55104

Interact
P.O. Box 262
Lakeside, Calif. 92040

John Knox Press
Box 1176
Richmond, Virginia 23209

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1212 Avenue of the Americas
New York, N.Y. 10036

Lincoln Filene Center
Tufts University
Medford, Mass. 02155

The Macmillan Company
866 Third Avenue
New York, N.Y. 10022

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Hartsdale, N.Y. 10530

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Glenview, Illinois 60025

SIMILE II
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La Jolla, Calif. 92037

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Philadelphia, P

F. Professional Resources

1. References for Objectives

Carpenter, Helen McCracken, ed., *Skill Development in Social Studies*, 33rd yearbook, National Council for the Social Studies. Washington: National Education Association, 1963.

This yearbook treats a wide range of social studies skills. The collection of articles on various skills was prepared on the assumption that skills must become a vital component of every social studies program. Before teachers can accept the responsibility for skills development, they must become familiar with the scope and magn necessary to students' intellectua yearbook ends with an appendix and grade placement.

Joyce, Bruce R., *New Strategies for* Science Research Associates, Inc., 197

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Ithaca. N.Y. 14850

Synectics Education System
121 Brattle St
Cambridge, Mass. 02138

Urban Systems, Inc.
1033 Massachusetts Avenue
Cambridge, Mass. 02138

Western Publishing Co., Inc.
School and Library Department
150 Parish Drive
Wayne, N.J. 07470

World Affairs Council of Philadelphia
3rd Floor Gallery, John Wanamaker Store
13th and Market Streets
Philadelphia, Pa. 19107

F. Professional Resources

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, National Council for the Social Studies.
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ills must become a vital component of
program. Before teachers can accept the
skills development, they must become familiar with the scope and magnitude of the learning tools necessary to students' intellectual and social behavior. The yearbook ends with an appendix dealing with skills analysis and grade placement.

Joyce, Bruce R., *New Strategies for Social Education.* Chicago: Science Research Associates, Inc., 1972.

Although Joyce doesn't treat objectives as such, his analysis of social education is based on the integration of three dimensions of social studies. The intellectual, social and personal dimensions described by Joyce parallel the scholarly, public and personal man treated in *Perspectives.* This book provides a much more detailed treatment of these general approaches to education than was possible in Chapter I on objectives.

Kibler, Robert J., Larry L. Barker, David T. Miles, *Behavioral Objectives and Instruction.* Boston: Allyn and Bacon, Inc., 1970.

This is a very practical guide to writing behavioral objectives. The book begins by developing the "General Model of Instruction" and goes on to elaborate the principles of writing behavioral objectives. Although the book is not exclusively related to social studies content, the theoretical framework developed by the authors was extensively used in Chapter I or *Perspectives.*

Mager, Robert F., *Preparing Objectives for Programmed Instruction.* San Francisco: Fearon, 1961.

This is a highly readable book that employs a programmed technique to develop the theme of writing performance based objectives. The book can be read quickly and is a good introduction to the general area of behavioral objectives. Because of its popularity, it is the most widely read book on the subject.

Flanagan, John C., William M. Shanner, Robert F. Mager, *Behavioral Objectives.* Palo Alto, Calif: Westinghouse Learning Press, 1971.

This set of four volumes covers terminal and instructional objectives in language arts, mathematics, social studies, and science. The social science volume is organized by subject matter areas and lists objectives in the primary, intermediate and secondary areas.

2. Reference for Questioning

Aschner, Mary Jane and Charles E. Bish, ed., *Productive Thinking in Education.* Washington, D. C.,: NEA Conference on Productive Thinking, 1965.

Two papers of particular inter
"Intellectual Factors in Producti
Wilson's "The Structure of the
summarizes the model used by G
processes involved in all levels of t
be reviewed before attempting
analysis of the particular ment
productive thinking. Compare Gui
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involved in various levels of thought

Beyer, Barry K. and Anthony N. Pe
Social Studies. Washington, D.C.: Natio
Studies, 1971.
Provocative and occasionally c
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Taught?"

Fair, Jean and Fannie R. Shaftel. ed..
Social Studies. Washington, D. C.: NCSS
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Klausmeier, Herbert J. and Chester
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l lists objectives in the primary, intermediate
reas.

for Questioning

and Charles E. Bish, ed., *Productive Thinking*
shington, D. C.,: NEA Conference on
, 1965.

Two papers of particular interest are J. P. Guilford's "Intellectual Factors in Productive Thinking" and Robert Wilson's "The Structure of the Intellect." Since Wilson summarizes the model used by Guilford to describe mental processes involved in all levels of thought, this article should be reviewed before attempting Guilford's more in-depth analysis of the particular mental processes involved in productive thinking. Compare Guilford's model to Sander's taxonomy for a broader perspective on the complex activities involved in various levels of thought.

Beyer, Barry K. and Anthony N. Penna, ed., *Concepts in the Social Studies.* Washington, D.C.: National Council for the Social Studies, 1971.

Provocative and occasionally conflicting selections by distinguished educators are arranged topically and sequentially to build the reader's understanding of the nature of concepts and of their place in the social studies curriculum. Note especially Part III: "How Can Concepts Be Taught?"

Fair, Jean and Fannie R. Shaftel, ed., *Effective Thinking in the Social Studies.* Washington, D. C.: NCSS Yearbook, 1967.

Treating the general theme of "teaching for thinking," this yearbook introduces several thinking and learning models and draws upon some of the more recent methodologies and social studies projects. Most pertinent to the themes of questioning and levels of thought are the chapters by Taba and by Parsons.

Klausmeier, Herbert J. and Chester W. Harris, *Analysis of Concept Learning.* New York: Academic Press, 1966.

The papers presented in this volume deal with much the same themes as the NCSS Bulletin above (Beyer, et al.) -- the nature of concepts, classification systems, and the teaching-learning process. These discussions are more formal, however, and include the perspectives of philosophers and psychologists as well as those of curriculum specialists. Most valuable to understanding the process of concept attainment from the *learner's* standpoint are chapters by Archer ("The

Meaningful Reception Nature of Concepts") and by Ausubel, ("Meaningful Reception Learning and the Acquisition of Concepts.") Technical jargon makes heavy reading at times, but these papers are well worth the effort.

3. References for Values

Greer, Mary and Bonnie Rubinstein, *Will the Real Teacher Please Stand Up?* Pacific Palisades, Calif.: Goodyear Publishing Company, Inc. 1972.

Subtitled "A Primer in Humanistic Education," this book is highly readable and enjoyable. Rather than offering a scholarly analysis of values formation, the authors use questions, readings, illustrations, and activities to provoke the thoughtful examination of the reader's own values. The text is made up of contributions by a host of philosophers, poets, teachers, novelists and students which portray both the happy and the sad aspects of education today.

Hunt, Maurice P., and Lawrence E. Metcalf, *Teaching High School Social Studies*, Second Edition. New York: Harper and Row, 1968.

This is a standard text in values education and predates the recent emphasis on values in the schools. In Chapter 6, the authors contend that the moralistic and positivistic approaches to values education have not been effective in preventing a "moral paralysis" among young people. The authors rely heavily on the reflective approach to teaching developed by John Dewey.

Metcalf, Lawrence E., ed., *Values Education: Rationale, Strategies and Procedures*, 41st yearbook, National Council for the Social Studies: National Education Association, 1971.

This is a sophisticated treatment of various strategies and procedures for values education in the schools. The authors down-play the separation between the cognitive and affective domains of learning and stress the logical and analytical aspects of teaching values.

Oliver, Donald W., and James P. Shaver, *Teaching Public Issues in the High School*, Boston: Houghton Mifflin Co., 1966.

This publication is the rationale a
behind the Harvard Social Studies
analysis of public conflict through
called the jurisprudential approach.
this approach and give suggestions fo

Raths, Louis C., et al., *Values and Tea*
Charles E. Merrill Publishing Co., 1966.

The authors propose that one of
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resolve value conflicts. A theory o
teaching strategies are provided as
student apathy, uncertainty
nonproductive behavior. The techn
book are designed to help teachers
already crowded curriculum.

4. References for Inquiry

Sanders, Norris M., *Classroom Questio*
York: Harper and Row, 1966.

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examples, each type of question is
questions following the chapters to
and reinforcement. Although distinc
are often difficult to make, Sander
variety of questioning strategies w
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Allen, Rodney F., et al, eds., *Inquiry*
Washington D. C.: National Council for

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Lawrence E. Metcalf, *Teaching High*
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Houghton Mifflin Co., 1966.

This publication is the rationale and experimental design behind the Harvard Social Studies Project. The focus is an analysis of public conflict through an analytical procedure called the jurisprudential approach. Parts II and III describe this approach and give suggestions for its implementation.

Raths, Louis C., et al., *Values and Teaching.* Columbus, Ohio: Charles E. Merrill Publishing Co., 1966.

The authors propose that one of the factors leading to emotional and intellectual disturbances is the inability to resolve value conflicts. A theory of values and associated teaching strategies are provided as a way of dealing with student apathy, uncertainty and other forms of nonproductive behavior. The techniques suggested in the book are designed to help teachers insert values into their already crowded curriculum.

4. References for Inquiry

Sanders, Norris M., *Classroom Questions: What Kinds?* New York: Harper and Row, 1966.

Using Bloom's categories of thinking, Sanders has developed a taxonomy of questions intended to aid teachers in raising the level of thought in their classrooms. Using pertinent examples, each type of question is treated in depth, with questions following the chapters to allow for self-evaluation and reinforcement. Although distinctions between categories are often difficult to make, Sanders' treatment provides a variety of questioning strategies with which teachers can broaden the cognitive menu they offer their students.

Allen, Rodney F., et al, eds., *Inquiry in the Social Studies.* Washington D. C.: National Council for the Social Studies, 1968.

This bulletin brings together the best articles on inquiry, including contributions from Bruner, F[illegible]ton, Suchman and Dewey, and is probably the ideal resource for the teacher with little time to devote to pursuing the literature in this subject. Both theory and implementation strategies are discussed, and the reader must reach his own conclusions as to which model (or combinations thereof) are of greatest merit.

Beyer, Barry K., *Inquiry in the Social Studies Classroom: A Strategy for Teaching.* Columbus, Ohio: Charles E. Merrill Publishing, Co., 1971.

Beyer does an excellent job of clearing up the confusion surrounding inquiry, separating inquiry as a learning method from inquiry as a teaching method. Building on the research of others (Taba, Fenton, Metcalf, etc.) he purports to provide an understandable practical model of inquiry for use in the classroom, and whether the reader finds his model of inquiry useful or not, he is certain to find the discussion of inquiry lucid and concise.

Fair, Jean and Fannie R. Shaftel, eds., *Effective Thinking in the Social Studies,* 37th yearbook. Washington: National Council for the Social Studies, 1967.

Although all of the selections in this yearbook deal in some way with thought quality, the chapters by Millard Clements, "The Disciplines and Social Studies," and by Charlotte Crabtree, "Supporting Reflective Thinking in the Classroom," emphasize particularly the place of inquiry in social studies instruction. In addition, each of these selections offers specific examples from the disciplines, suggests models for implementation, and discusses the relation of the inquiry method to the thinking process.

Lippett, Ronald, Robert Fox and Lucille Schaible, *The Teacher's Role in Social Science Investigation.* Chicago: Science Research Associates, 1969.

This is the teacher's resource booklet accompanying the SRA Social Science Laboratory Units and is designed to instruct inservice teachers in the basic concepts and methods used in that program. Although much of the book is necessarily concerned with the particular problems of those units, the chapters on the inquiry method (chapter 1) and on organizing for small group work (chapter 6) will be helpful to anyone experimenting with inquiry. Many of the student projects and activities described (making observations, interviewing, analyzing questionnaires) may be adopted by teachers wanting to introduce behavioral science into their classrooms.

Raths, Louis, et al., *Teaching for Thinking: Theory and Application.* Columbus, Ohio: Charles E.

The theory mentioned in the title is
to behavior, asserting that what
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and consistently. After listing a num
(comparing, classifying, interpreting
thought, the authors devote a majo
applying some of those behaviors
suggested exercises, many drawn
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teachers, they will also want to look
the problems of when and how
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5. References for Simula

Boocock, Sarane S., and E. O. Schild,
Learning. Beverly Hills, Calif.: Sage Publ

This book treats simulation from th
well-known writers in the field. The
as a teaching device as well as provi
for simulations and documentati
classroom.

Gordon, Alice Kaplan, *Games for*
Research Associates, 1970.

The book will be a helpful tool
finding published games to use wi
highlights the evaluation of student
the games and illustrates teaching ro
stages of the games.

Klietsh, R.G., *An Introduction t*
Instructional Simulations. Newpor
Simulations, 1969.

The author takes a systems appro
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model.

Nesbitt, William A., *Simulation Gam*
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Teaching for Thinking: Theory and

Application. Columbus, Ohio: Charles E. Merrill Books Inc., 1967.

The theory mentioned in the title is one which relates thinking to behavior, asserting that what is commonly considered immature behavior is a result of the inability to think logically and consistently. After listing a number of general operations (comparing, classifying, interpreting) which encourage student thought, the authors devote a major portion of the book to applying some of those behaviors to specific examples and suggested exercises, many drawn from the social studies. Although Part 3 warrants heaviest examination by secondary teachers, they will also want to look at Part 4, which deals with the problems of when and how to include "teaching for thinking" in the curriculum.

5. References for Simulation

Boocock, Sarane S., and E. O. Schild, eds., *Simulation Games in Learning.* Beverly Hills, Calif.: Sage Publications Inc., 1968.

This book treats simulation from the vantage point of several well-known writers in the field. The authors explore simulation as a teaching device as well as provide the theoretical rationale for simulations and documentation of its effects in the classroom.

Gordon, Alice Kaplan, *Games for Growth.* Chicago: Science Research Associates, 1970.

The book will be a helpful tool for teachers interested in finding published games to use with their classes. The book highlights the evaluation of students as they progress through the games and illustrates teaching roles associated with various stages of the games.

Klietsh, R.G., *An Introduction to Learning Games and Instructional Simulations.* Newport, Minn.: Instructional Simulations, 1969.

The author takes a systems approach to simulation and the book would be a good introduction to gaming through systems model.

Nesbitt, William A., *Simulation Games for the Social Studies Classroom.* (New Dimension Series: Booklets on the Social Studies and World Affairs). New York: Foreign Policy Association.

This book provides basic hints as to selecting, designing and using simulations in the classroom. It is a short but highly useful reference for teachers.

Shaftel, Fannie R., and George Shaftel. *Role-Playing for Social Values: Decision-Making in the Social Studies.* New Jersey: Prentice-Hall, Inc., 1967.

The authors use role-playing to explore group behavior and as a vehicle for values clarification. Because role-playing is a component of simulation, this book will suggest the type of content that promotes choice-making through various role-playing situations.

6. References for Evaluation

Berg, Harry D., ed., *Evaluation in the Social Studies.* Washington, D.C.: National Council for the Social Studies, 1965.

This collection of writings on evaluating social studies learning is considered to be the best. It was written with the classroom teacher in mind, and should serve as a practice guide to evaluate and improve testing devices. Chapter Eleven provides good sources of information about published social studies tests.

Bloom, Benjamin, J. Thomas Hastings, George F. Madaus: *Handbook on Formative and Summative Evaluation of Student Learning.* New York: McGraw-Hill Book Company 1971.

This is a comprehensive study of the latest evaluation theory and techniques for use in education. Chapter 16 deals with "Evaluation of Learning in Secondary School Social Studies." This is a scholarly in-depth study of formative and summative evaluation.

Ebel, Robert L., *Measuring Educational Achievement*, Englewood Cliffs, New Jersey: Prentice Hall, 1965.

This book serves as a primary reference on the field of educational measurement. It is oriented toward the practical problems of measuring the results of learning. This book is extremely helpful in the areas of test development and test analysis.

Green, John A., *Introduction to Measu*
New York: Dodd, Mean & Company, 197
This book discusses many aspects of e
Part II is particularly interesting
prerequisites to learning in terms of t
the social climate of the classroom. C
in establishing guidelines for grading.

Thorndike, Robert L., ed., *Educational*
Washington, D.C.: American Council on E
This volume is a compilation of writ
educational measurements. Part Fou
interesting readings on the applicatio
problems. Also helpful, Part On
construction, administration, and pr
of the readings are for the more adv
worthwhile reading.

7. References for Interac

Amidon, Edmund J., and John B. Hough,
Theory, Research and Applica
Addison-Wesley Publishing Co., 1967.
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interest to those wanting some back
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System of Interaction Analysis and t
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and is addressed to those wanting
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additional topics of individual interest

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Educational Achievement, Englewood
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g the results of learning. This book is
the areas of test development and test

Green, John A., *Introduction to Measurement and Evaluation.* New York: Dodd, Mean & Company, 1970.

This book discusses many aspects of educational measurement. Part II is particularly interesting, for it examines the prerequisites to learning in terms of the individual student and the social climate of the classroom. Chapter Fourteen is useful in establishing guidelines for grading.

Thorndike, Robert L., ed., *Educational Measurement*, 2nd ed., Washington, D.C.: American Council on Education, 1971.

This volume is a compilation of writing on various aspects of educational measurements. Part Four of the volume provides interesting readings on the application of tests to educational problems. Also helpful, Part One explores test design, construction, administration, and processing. Although some of the readings are for the more advanced student, it is still worthwhile reading.

7. References for Interaction Analysis

Amidon, Edmund J., and John B. Hough, ed., *Interaction Analysis: Theory, Research and Application.* Reading, Mass.: Addison-Wesley Publishing Co., 1967.

The collection of research papers in this book will be of major interest to those wanting some background in the theory of classroom verbal interaction and in the various experiments in coding that interaction. Chapter 2 includes the Flanders System of Interaction Analysis and two modifications of that pioneer system. It is more technical than the rest of the book and is addressed to those wanting to learn the skills of classroom observation. Consult the table of contents for additional topics of individual interest.

Amidon, Edmund J., and Elizabeth Hunter, *Improving Teaching: The Analysis of Classroom Verbal Interaction.* Chicago: Holt, Rinehart and Winston, Inc., 1966.

This is essentially a handbook which describes the Verbal Interaction Category System and makes it immediately useful to teaching activities defined in Chapter 1.

Although most of the examples are drawn from elementary classrooms, and may be difficult for secondary teachers to identify with, the "What would you have done?" approach is very effective in familiarizing the teacher with the VICS and allows him to test his skill in classifying verbal behavior.

Cantor, Nathaniel, *Dynamics of Learning.* Buffalo, N.Y.: Henry Stewart, Inc. 1961.

Cantor is chairman of the Department of Anthropology and Sociology at the University of Buffalo and brings a somewhat different perspective to the question of what happens between "living students and living teachers" in a classroom situation. Of particular importance are those chapters (six thorugh ten) dealing with student response to teachers who do not play the usual school game: transcripts from his classes provide excellent material for analyzing the interaction of an accepting, nondirective teacher and college students raised on the lecture method. Although Cantor's analysis of the "highly skilled, professional teacher" is rather egotistical, his insight into student behavior is unquestionable.

Simon, Anita, and E. Gil Boyer, eds., *Mirrors of Behavior: Anthology of Classroom Observation Instruments,* vol. 1-15. Philadelphia: Research for Better Schools, 1967.

This is the definitive work done on interaction analysis. Although this set of books is more appropriate for library reference, hundreds of the various interaction systems are collected for possible use in the classroom.

8. References for Curriculum Materials Analysis

Knight, Merle M., "An Annotated Bibliography for Curriculum Materials Analysis," Monograph. Social Science Education Consortium, Inc., Boulder, Colorado., 1969.

This is a comprehensive bibliography for the type of questions raised by the curriculums materials analysis system. It should be required reading before any such analysis is undertaken.

Bruner, Jerome S., *Toward a Theory of Instruction.* New York: W. W. Norton, 1966.

This is one of the most influentia
Many of the developers of New Soc
justify their work.

Alan, Tom, *An Approach to Selecti*
Curricula. Central Midwestern Region
Inc., St. Ann, Missouri, 1970.

The Tom model provided the ma
VIII in *Perspectives.*

Morrissett, Irving, ed., *Concepts and S*
Science Curricula. New York: Holt, Ri

Social Science in the Schools: A Search
and Winston, 1971.

Both of Morrissett's books raise im
studies education. The author is a
the scholarly man approach to
defended that position with insight

9. References on Distric Curriculum Analysis

Banathy, Bela H., *Instructional System*
Publishers. 1968.

This short volume makes systems a
tool for curriculum change. The
theoretical framework for a compre
program.

Fraser, Dorothy McClure, ed., *So*
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Council for the Social Studies. Wa
Education Association, 1969.

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Lawler, Marcella., ed., *Strategies fo*

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namics of Learning. Buffalo, N.Y.: Henry

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. Gil Boyer, eds., *Mirrors of Behavior: om Observation Instruments*, vol. 1-15. for Better Schools, 1967.

tive work done on interaction analysis. of books is more appropriate for library s of the various interaction systems are le use in the classroom.

or Curriculum alysis

Annotated Bibliography for Curriculum Monograph. Social Science Education der, Colorado., 1969.

hensive bibliography for the type of the curriculums materials analysis system. red reading before any such analysis is

ard a Theory of Instruction. New York: W.

This is one of the most influential books of the past decade. Many of the developers of New Social Studies used this book to justify their work.

Alan, Tom, *An Approach to Selecting Among Social Studies Curricula*. Central Midwestern Regional Educational Laboratroy, Inc., St. Ann, Missouri, 1970.

The Tom model provided the major framework for Chapter VIII in *Perspectives*.

Morrissett, Irving, ed., *Concepts and Structure in the New Social Science Curricula*. New York: Holt, Rinehart and Winston, 1967.

Social Science in the Schools: A Search. New York: Holt, Rinehart and Winston, 1971.

Both of Morrissett's books raise important issues about social studies education. The author is an articulate spokesman for the scholarly man approach to social education and has defended that position with insight and brilliance.

9. References on District-Wide Curriculum Analysis

Banathy, Bela H., *Instructional Systems*. Palo Alto, Calif.: Fearon Publishers, 1968.

This short volume makes systems analysis a useful educational tool for curriculum change. The book could provide the theoretical framework for a comprehensive curriculum revision program.

Fraser, Dorothy McClure, ed., *Social Studies Curriculum Development: Prospects and Problems*, 39th yearbook. National Council for the Social Studies, Washington, D.C.: National Education Association, 1969.

Probably more than any other source, this volume has captured the ferment and change of nearly a decade of curriculum development. The authors cover a range of topics useful in both, explaining the new movements and implementing them in the classroom. This book should be required reading for any district contemplating change in its social studies curriculum.

Lawler, Marcella., ed., *Strategies for Planned Curricular*

Innovation. New York: Teachers College Press, 1970.

The author has compiled a series of readings which treat various stages of the curriculum change process. The first chapter breaks curriculum into eight components, all of which must be considered when planning for curriculum revision. A careful reading of the volume will prevent many of the mistakes that are commonly made when revising curriculum.

Appendix A

Glossary

Affective Domain

The feeling or emotional aspect of learning. Usually affective learning is categorized into degrees of commitment to a belief or value.

Cognitive Domain

The intellectual aspect of learning involved in such processes as perceiving, understanding and knowing. These processes are based on such modes of learning as perception, introspection and memory. Usually it is categorized according to levels of thinking.

Critical Thinking

A careful, persistent and active consideration of any belief, value system or formation of knowledge. It is a process of validation where truth is determined in light of the evidence that supports it and in terms of the conclusions that can be generated from it.

Cybernetic System

A system is a collection of parts organized into a whole for a given purpose. A cybernetic system includes a self-regulating feedback mechanism which automatically adjusts performance according to the standards that are established.

Debriefing

The term is usually associated with simulation material and is a systematic exploration of the big ideas and relationships that students experienced while involved in a simulation. It can be applied to any process that examines a learning activity after the fact to clarify the major understanding inherent in the student behavior.

Deductive Inquiry

A teaching strategy in which the teacher leads students from general or universal principles to their specific applications. In concept teaching it occurs when the teacher presents a concept label and students are asked to distinguis
non-examples of the concept, thereby d
of the concept.

Didactic Strategy

A teaching strategy that employs a dire
or theme. It is commonly used in lectu
conveying information is the teacher's m

Discrepant Data Strategy

A learning strategy based on a strongly
around which a learner organizes data in
are forced to come to terms with the in
own attitudes or beliefs.

Encounters

The contacts a person has with his enviro
an encounter might be when a student
poem, or experiences a film. It could b
smells, sounds and tastes the teacher bri
initiate learning.

Formative Evaluation

This is the type of process by which e
measured against predetermined standa
improving instruction. The process is cy
the teacher makes any adjustments in t
necessary to maximize the achieve
objectives.

Inductive Inquiry

A teaching strategy in which the stude
specific to the general. In concept te
students are asked to observe particular i
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Glossary

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label and students are asked to distinguish between examples and non-examples of the concept, thereby determining the attributes of the concept.

Didactic Strategy

A teaching strategy that employs a direct explanation of a topic or theme. It is commonly used in lecture, film or reading where conveying information is the teacher's major objective.

Discrepant Data Strategy

A learning strategy based on a strongly held student stereotype around which a learner organizes data in such a way that students are forced to come to terms with the inconsistency within their own attitudes or beliefs.

Encounters

The contacts a person has with his environment. In the classroom an encounter might be when a student sees a picture, hears a poem, or experiences a film. It could be any number of sights, smells, sounds and tastes the teacher brings to class and uses to initiate learning.

Formative Evaluation

This is the type of process by which educational outcomes are measured against predetermined standards for the purpose of improving instruction. The process is cybernetic in nature where the teacher makes any adjustments in the instructional system necessary to maximize the achievement of instructional objectives.

Inductive Inquiry

A teaching strategy in which the students are taken from the specific to the general. In concept teaching it occurs when students are asked to observe particular instances or samples and, from the patterns they discover, group and label the data into categories. Once the concepts are developed students can make generalizations and applications around the concept.

Inquiry Approach

A mode of investigation which rests on a particular technique or strategy which encourages students to manipulate data, raise questions, seek solutions and thereby determine answers for themselves.

Organizers

This is a condition of mind students bring to the things they encounter in the environment. It is the data, concepts, constructs, theories, models and past experience that students use to create meaning from the things encountered. They help students organize their present thinking by relating it to prior patterns that have already been developed.

The Public Issues Approach

A teaching strategy which is used to explore controversial public issues. It is a rational process for dealing with conflict through specific discussion techniques.

Rationale

The justification provided for a program or curriculum that provides an overview of the major principles, procedures and processes used. Usually rationale deals with the relationship between a program and the higher goals it is designed to serve.

Simulation

A teaching-learning activity with rules, roles and an environmental model which treats problems from the real world in a hypothetical environment.

Structure of the Discipline

The organization of the cognitive composition of a field of knowledge. Usually it is in terms of the concepts, generalizations, theories, laws and models that define a subject area. Structure can also relate to the processes used by the practitioners of the various disciplines.

Summative Evaluation

This is a process of measuring the products or learning that has taken place. Its primary function is to
to their mastery of the instructional ob
linear rather than a cybernetic model.

Verification

These are teaching sequences that requ
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taken place. Its primary function is to grade students according to their mastery of the instructional objectives. It is based on a linear rather than a cybernetic model.

Verification

These are teaching sequences that require students to test their knowledge through such processes as seeking and solving problems, making and applying generalizations, and model building and prediction.

Appendix B

School Laws of Iowa Pertaining to Social Studies Instruction

Senate File 126, an act relating to the educational program of schools, as passed by the 1974 Regular Session of the 65th General Assembly. The effective date of this act was July 1, 1974. It completely rewrites existing provisions of Chapter 280 and makes major modification of Section 257.25, Code of Iowa. The following are excerpts from Section 257.25.

257.25 EDUCATIONAL STANDARDS

3. The following areas shall be taught in grades one through six: . . . . social studies, including geography, history of the United States and Iowa with attention given to the role in history played by all persons, and a positive effort shall be made to reflect the achievements of women, minorities, and any others who, in the past, may have been ignored or overlooked by reason of race, sex, religion, physical disability, or ethnic background, cultures of other peoples and nations, and American citizenship, including the study of national, state, and local government in the United States. . . .

4. The following shall be taught in grades seven and eight as a minimum program: . . . . social studies with attention given to the role in history played by all persons, and a positive effort shall be made to reflect the achievements of women, minorities, and any others who, in the past, may have been ignored or overlooked by reason of race, sex, religion, physical disability, or ethnic background, cultures of other peoples and nations, and American citizenship. . . .

6. In grades nine through twelve, a unit of credit shall consist of a course or equivalent related components or partial units taught throughout the academic year. The minimum program for grades nine through twelve shall be: . . . .

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The county auditor, upon req
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b. Four units of the social studies. American government, government and cultures of other peoples and nations, and general consumer education, family law, and economics, including comparative and consumer economics, shall be taught in the units but need not be required as full units. All students shall be required to take one unit of American history which shall give attention to the role in history played by all persons, and a positive effort shall be made to reflect the achievements of women, minorities, and any others who, in the past, may have been ignored or overlooked by reason of race, sex, religion, physical disability, or ethnic background and one-half unit of the governments of Iowa and the United States, including instruction in voting statutes and procedures, voter registration requirements, the use of paper ballots and voting machines in the election process, and the method of acquiring and casting an absentee ballot.

The county auditor, upon request and at a site chosen by him, shall make available to schools within the county voting machines or sample ballots that are generally used within the county, at such times that these machines or sample ballots are not in use for their recognized purpose.

NEW SECTION. DISPLAY OF UNITED STATES FLAG AND IOWA STATE BANNER. The board of directors of each public school district and the authorities in charge of each nonpublic school shall provide an maintain a suitable flag-staff on each school site under its control, and the United States flag and the Iowa state banner shall be raised on all school days when weather conditions are suitable.